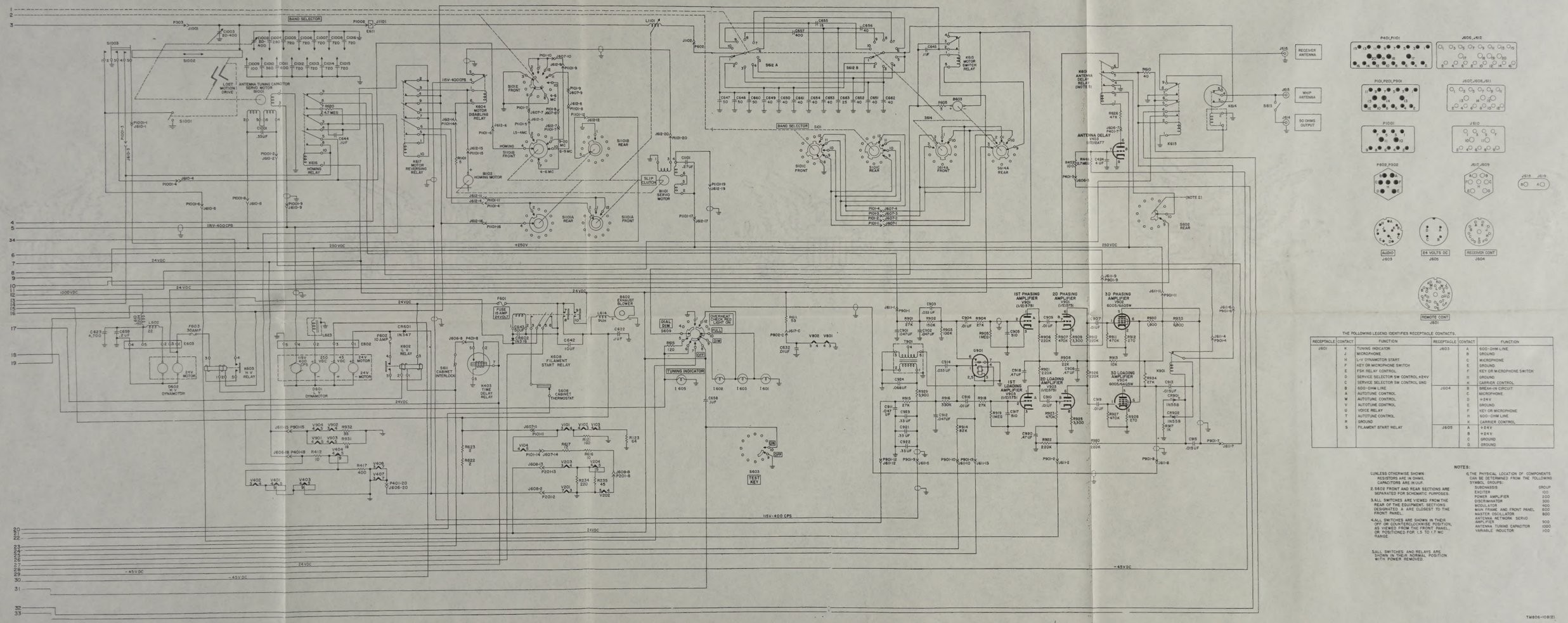


THE FOLLOWING LEGEND IDENTIFIES RECEPTACLE CONTACTS.

RECEPTACLE	CONTACT	FUNCTION	RECEPTACLE	CONTACT	FUNCTION
J601	K	TUNING INDICATOR	J603	A	600-OHM LINE
	J	MICROPHONE		B	GROUND
	H	L-V DYNAMOTOR START		C	MICROPHONE
	F	KEY OR MICROPHONE SWITCH		E	GROUND
	E	FSK RELAY CONTROL		F	KEY OR MICROPHONE SWITCH
	D	SERVICE SELECTOR SW CONTROL +24V		H	GROUND
	C	SERVICE SELECTOR SW CONTROL GND		K	CARRIER CONTROL
	B	600-OHM LINE	J604	B	BREAK-IN CIRCUIT
	A	AUTOTUNE CONTROL		C	MICROPHONE
	W	AUTOTUNE CONTROL		D	+24V
	V	AUTOTUNE CONTROL		E	GROUND
	U	VOICE RELAY		F	KEY OR MICROPHONE
	T	AUTOTUNE CONTROL		H	600-OHM LINE
	R	GROUND		K	CARRIER CONTROL
	S	FILAMENT START RELAY	J605	A	+24V
				B	+24V
				C	GROUND
				D	GROUND

NOTES:

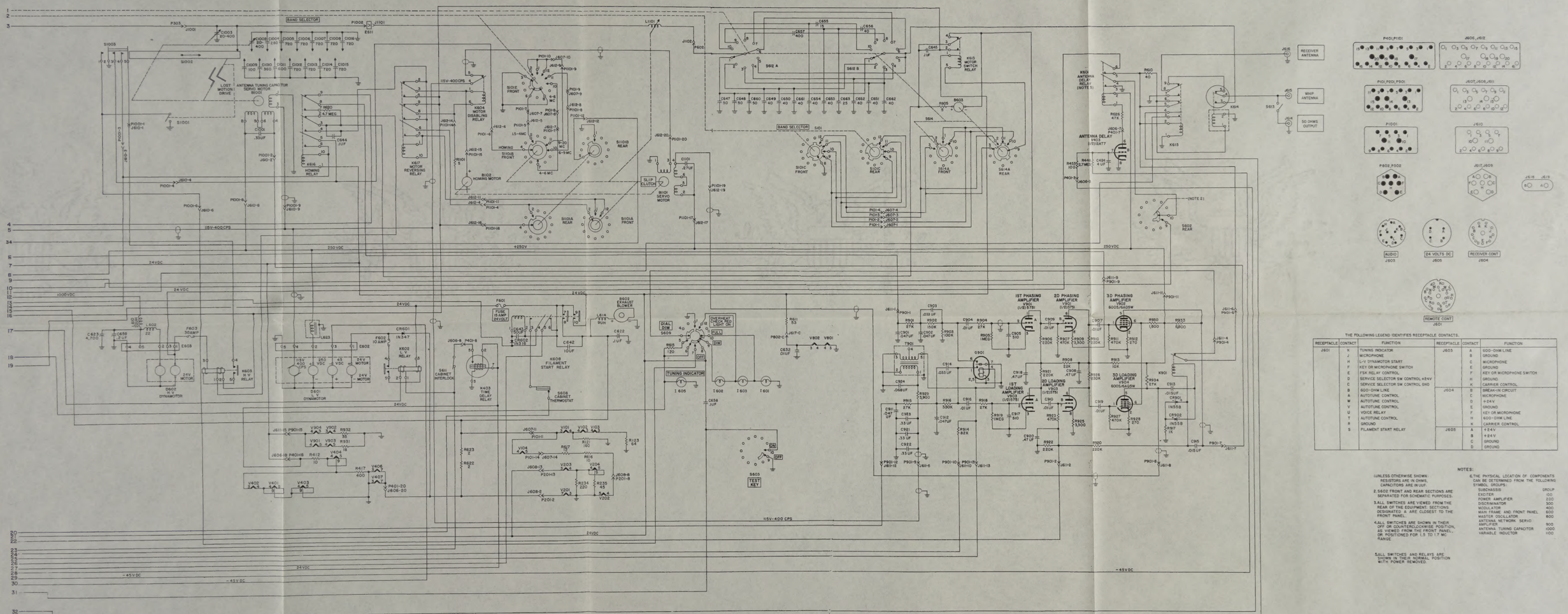
1. UNLESS OTHERWISE SHOWN: RESISTORS ARE IN OHMS; CAPACITORS ARE IN UUF.
2. S602 FRONT AND REAR SECTIONS ARE SEPARATED FOR SCHEMATIC PURPOSES.
3. ALL SWITCHES ARE VIEWED FROM THE REAR OF THE EQUIPMENT. SECTIONS DESIGNATED A ARE CLOSEST TO THE FRONT PANEL.
4. ALL SWITCHES ARE SHOWN IN THEIR OFF OR COUNTERCLOCKWISE POSITION, AS VIEWED FROM THE FRONT PANEL, OR POSITIONED FOR 1.5 TO 1.7 MC RANGE.
5. ALL SWITCHES AND RELAYS ARE SHOWN IN THEIR NORMAL POSITION WITH POWER REMOVED.
6. THE PHYSICAL LOCATION OF COMPONENTS CAN BE DETERMINED FROM THE FOLLOWING SYMBOL GROUPS:

SUBCHASSIS	GROUP
EXCITER	100
POWER AMPLIFIER	200
DISCRIMINATOR	300
MODULATOR	400
CHASSIS REAR AND FRONT PANEL	500
MASTER OSCILLATOR	600
ANTENNA NETWORK SERVO AMPLIFIER	900
ANTENNA TUNING CAPACITOR	1000
VARIABLE INDUCTOR	1100

TM806-10813

390412 O-56 (in pocket) No. 24

Figure 139. Radio Transmitter T-195/GRC-19, schematic diagram—Continued.



THE FOLLOWING LEGEND IDENTIFIES RECEPTACLE CONTACTS.

RECEPTACLE	CONTACT	FUNCTION
J601	K	TUNING INDICATOR
	J	MICROPHONE
	H	L-V DYNAMOTOR START
	F	KEY OR MICROPHONE SWITCH
	E	FSK RELAY CONTROL
	D	SERVICE SELECTOR SW CONTROL +24V
	C	SERVICE SELECTOR SW CONTROL GND
	B	600-OHM LINE
	A	AUTOTUNE CONTROL
	W	AUTOTUNE CONTROL
	V	AUTOTUNE CONTROL
	U	VOICE RELAY
	T	AUTOTUNE CONTROL
	R	GROUND
	S	FILAMENT START RELAY

RECEPTACLE	CONTACT	FUNCTION
J603	A	600-OHM LINE
	B	GROUND
	C	MICROPHONE
	E	GROUND
	F	KEY OR MICROPHONE SWITCH
	H	GROUND
	K	CARRIER CONTROL
J604	B	BREAK-IN CIRCUIT
	C	MICROPHONE
	D	+24V
	E	GROUND
	F	KEY OR MICROPHONE
	H	600-OHM LINE
	K	CARRIER CONTROL
J605	A	+24V
	B	+24V
	C	GROUND
	D	GROUND

NOTES:

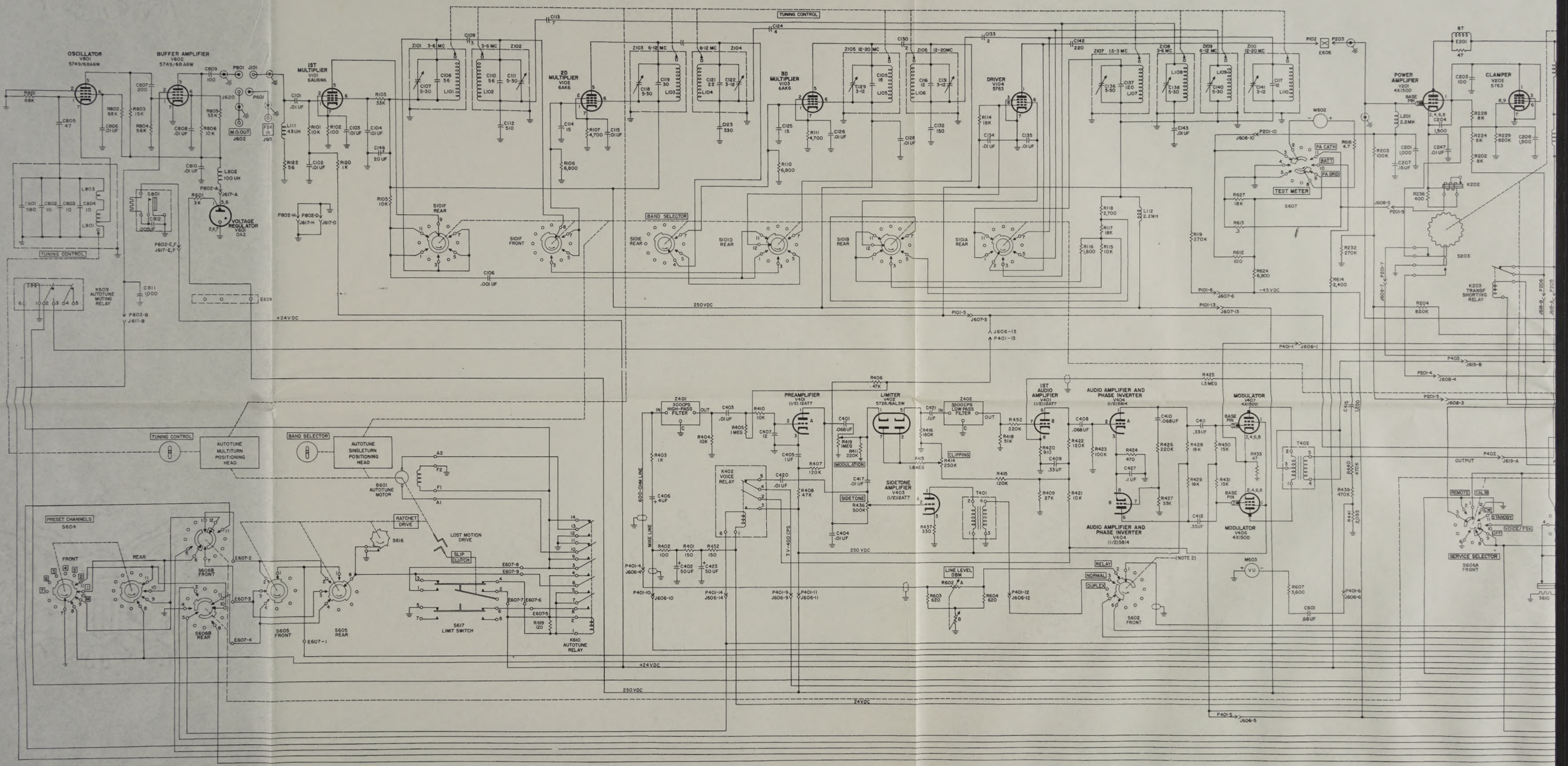
1. UNLESS OTHERWISE SHOWN: RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
2. S602 FRONT AND REAR SECTIONS ARE SEPARATED FOR SCHEMATIC PURPOSES.
3. ALL SWITCHES ARE VIEWED FROM THE REAR OF THE EQUIPMENT. SECTIONS DESIGNATED A ARE CLOSEST TO THE FRONT PANEL.
4. ALL SWITCHES ARE SHOWN IN THEIR OFF OR COUNTERCLOCKWISE POSITION, AS VIEWED FROM THE FRONT PANEL, OR POSITIONED FOR 1.5 TO 1.7 MC RANGE.
5. ALL SWITCHES AND RELAYS ARE SHOWN IN THEIR NORMAL POSITION WITH POWER REMOVED.
6. THE PHYSICAL LOCATION OF COMPONENTS CAN BE DETERMINED FROM THE FOLLOWING SYMBOL GROUPS:

SUBCHASSIS	GROUP
EXCITER	000
POWER AMPLIFIER	200
DISCRIMINATOR	300
MODULATOR	400
MAIN FRAME AND FRONT PANEL	600
MASTER OSCILLATOR	800
ANTENNA NETWORK SERVO AMPLIFIER	900
ANTENNA TUNING CAPACITOR	1000
VARIABLE INDUCTOR	100

TM806-1082

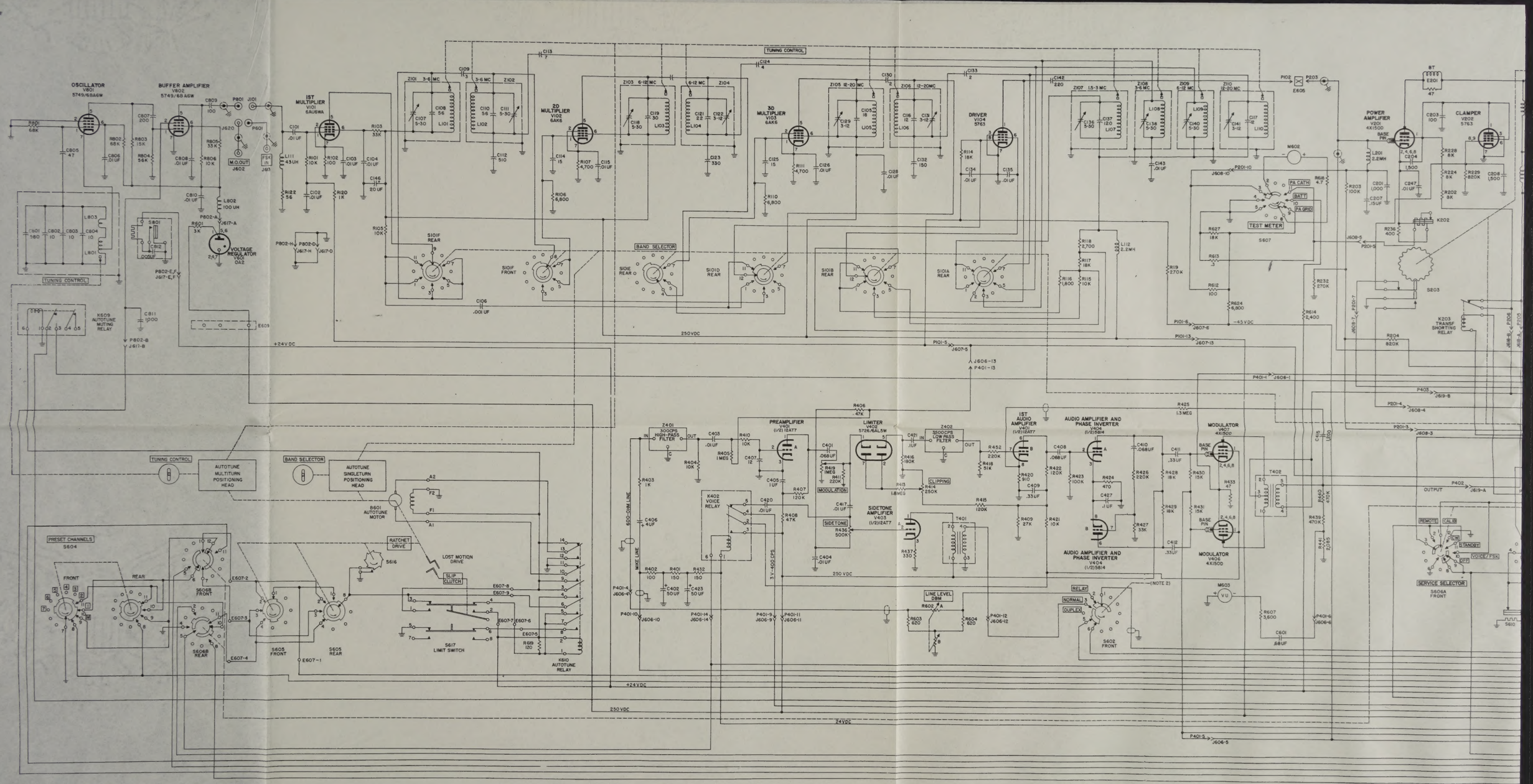
390412 O-56 (In pocket) No. 24

Figure 139. Radio Transmitter T-195/GRC-19, schematic diagram—Continued.



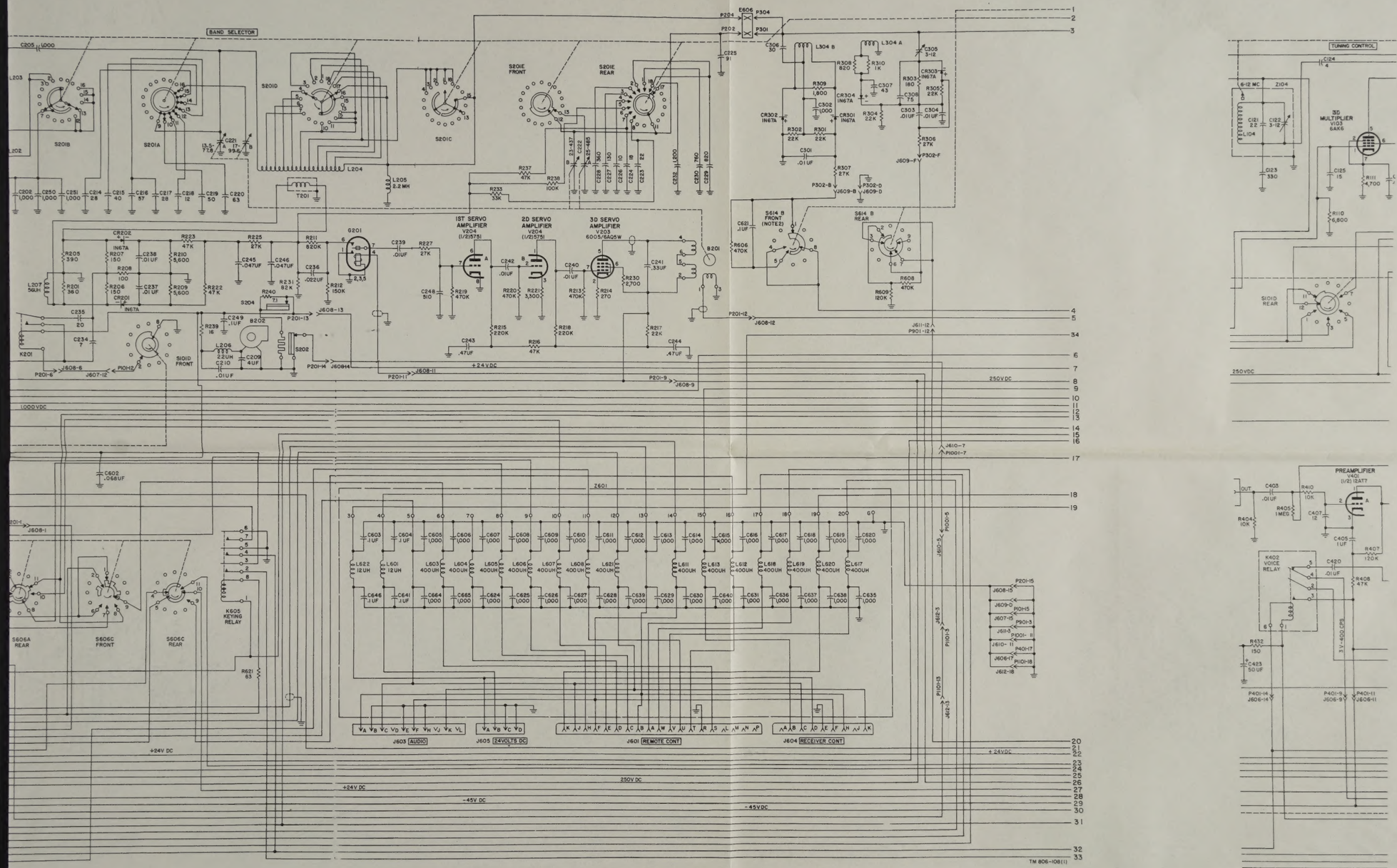
RADIO TRANSMITTER T-195/GRC-19, SCHEMATIC DIAGRAM (SHEET 1 OF 2)

Figure 139. Radio Transmitter T-195/GRC-19, schematic diagram.



RADIO TRANSMITTER T-195/GRC-19, SCHEMATIC DIAGRAM (SHEET 1 OF 2)

Figure 139. Radio Transmitter T-195/GRC-19, schematic diagram.



EMATIC DIAGRAM (SHEET 1 OF 2).

BAND SELECTOR

S201B

S201A

S201D

S201C

S201E FRONT

S201E REAR

L203

L202

C205 1000

C202 1,000

C250 1,000

C251 1,000

C214 28

C215 40

C216 57

C217 28

C218 12

C219 50

C220 63

C221 13.5-77.8 A, 17-99.6 B

L204

L205 2.2 MH

T201

R237 47K

R238 100K

R233 33K

C222 23-437

C225 25-485

C228 360

C227 130

C226 10

C224 18

C223 22

C232 1,500

C230 760

C229 820

P204 E606 P304

P202 P301

C225 91

C306 30

L304 B

L304 A

C305 3-12

R308 820

R310 1K

C307 43

R309 1,800

C302 1,000

CR304 IN67A

CR303 IN67A

R303 180

C308 75

R305 22K

CR302 IN67A

CR301 IN67A

R304 22K

C303 .01UF

C304 .01UF

R302 22K

R301 22K

R306 27K

P302-F

J609-F

C301 .01UF

R307 27K

P302-B J609-B

P302-D J609-D

S614 B FRONT (NOTE2)

S614 B REAR

C621 .1UF

R606 470K

R608 470K

R609 120K

1ST SERVO AMPLIFIER V204 (1/2 5751)

2D SERVO AMPLIFIER V204 (1/2 5751)

3D SERVO AMPLIFIER V203 6005/6AQ5W

G201

B201

CR202 IN67A

R223 47K

R225 27K

R211 820K

C239 .01UF

R227 27K

R205 390

R207 150

C238 .01UF

R210 5,600

R208 100

R206 150

C237 .01UF

R209 5,600

L207 56UH

R201 360

R222 47K

C245 .047UF

C246 .047UF

C236 .022UF

R231 82K

R212 150K

C201 IN67A

R240 71

S204

C235 20

C234 7

K201

C249 .1UF

B202

R239 16

L206 22UH

C210 .01UF

C209 4UF

S202

SIOID FRONT

P201-13 J608-13

P201-14 J608-14

P201-11 J608-11

P201-9 J608-9

+24VDC

C242 .01UF

R220 470K

R221 3,300

C248 510

R219 470K

R215 220K

C243 .47UF

R216 47K

C240 .01UF

R213 470K

R214 270

R230 2,700

R218 220K

C241 .33UF

R217 22K

C244 .47UF

P201-12 J608-12

J611-12 P901-12

250VDC

1000VDC

C602 .068UF

P201-1 J608-1

J607-12 P101-2

S606A REAR

S606C FRONT

S606C REAR

K605 KEYING RELAY

R621 63

+24V DC

Z601

C603 .1UF

C604 .1UF

C605 1,000

C606 1,000

C607 1,000

C608 1,000

C609 1,000

C610 1,000

C611 1,000

C612 1,000

C613 1,000

C614 1,000

C615 1,000

C616 1,000

C617 1,000

C618 1,000

C619 1,000

C620 1,000

L622 12UH

L601 12UH

L603 400UH

L604 400UH

L605 400UH

L606 400UH

L607 400UH

L608 400UH

L621 400UH

L611 400UH

L613 400UH

L612 400UH

L618 400UH

L619 400UH

L620 400UH

L617 400UH

C646 .1UF

C641 .1UF

C664 1,000

C665 1,000

C624 1,000

C625 1,000

C626 1,000

C627 1,000

C628 1,000

C639 1,000

C629 1,000

C630 1,000

C640 1,000

C631 1,000

C636 1,000

C637 1,000

C638 1,000

C635 1,000

J603 AUDIO

J605 24VOLTS DC

J601 REMOTE CONT

J604 RECEIVER CONT

250V DC

+24V DC

-45V DC

-45VDC

J610-7 P1001-7

J610-5 P1001-5

J612-3 P1101-3

P1101-13 J612-13

P201-15 J608-15

J609-9 P101-15

J607-15 P901-3

J611-3 P1001-11

J610-11 P401-17

J606-17 P1101-18

J612-18

P201-15

P201-9

P201-14

P201-11

P201-12

P201-13

P201-1

P201-6

1000VDC

+24V DC

-45V DC

250V DC

+24VDC

-45VDC

TM 806-108(1)

TUNING CONTROL

C124 4

6-12 MC Z104

C121 22

C122 3-12

L104

C123 330

3D MULTIPLIER V103 6AK6

C125 15

R111 4,700

R110 6,800

SIOID REAR

250VDC

PREAMPLIFIER V401 (1/2) 12AT7

OUT

C403 .01UF

R410 10K

R405 1 MEG

R404 10K

C407 12

C405 1UF

R407 120K

K402 VOICE RELAY

C420 .01UF

R408 47K

R432 150

C423 50 UF

3 V - 400 CPS

P401-14 J606-14

P401-9 J606-9

P401-11 J606-11

EMATIC DIAGRAM (SHEET 1 OF 2).

390412 O-56 (In pocket) No. 23

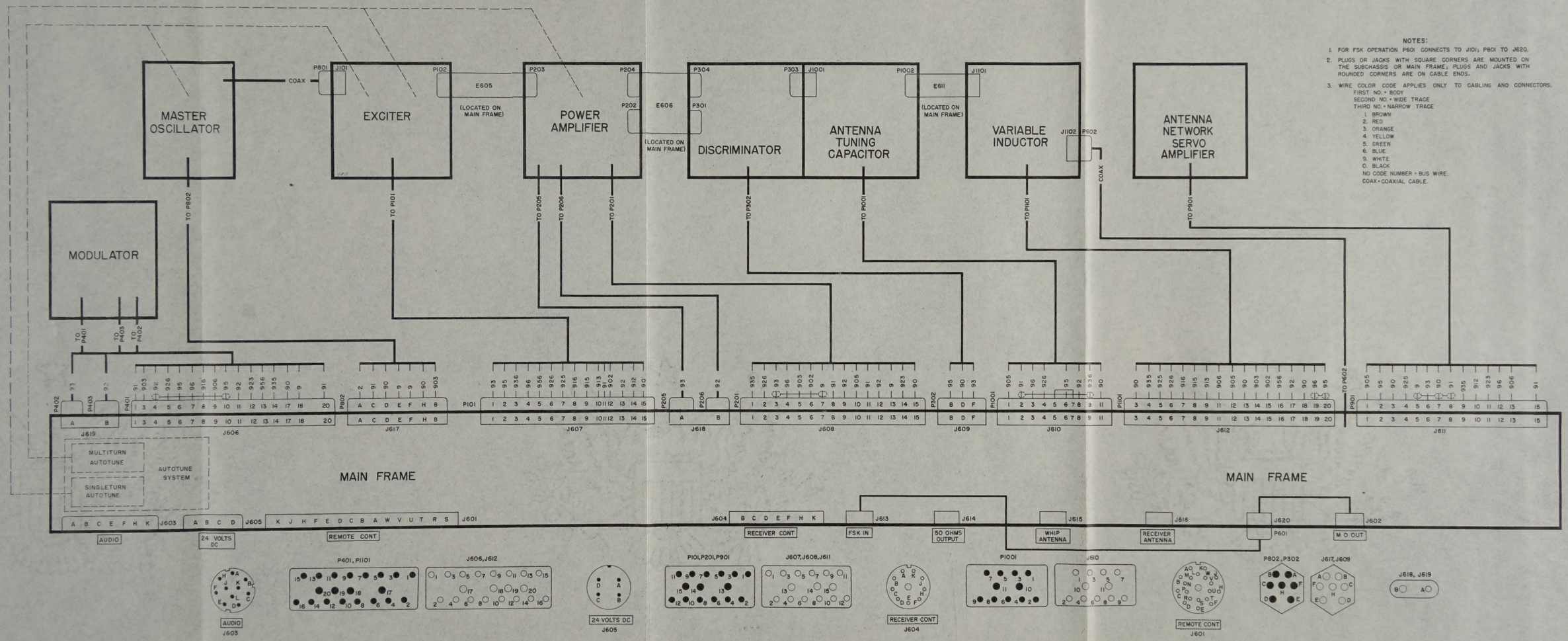


Figure 138. Subchassis interconnection cabling diagram.

TM806-136

390412 O-56 (In pocket) No. 22

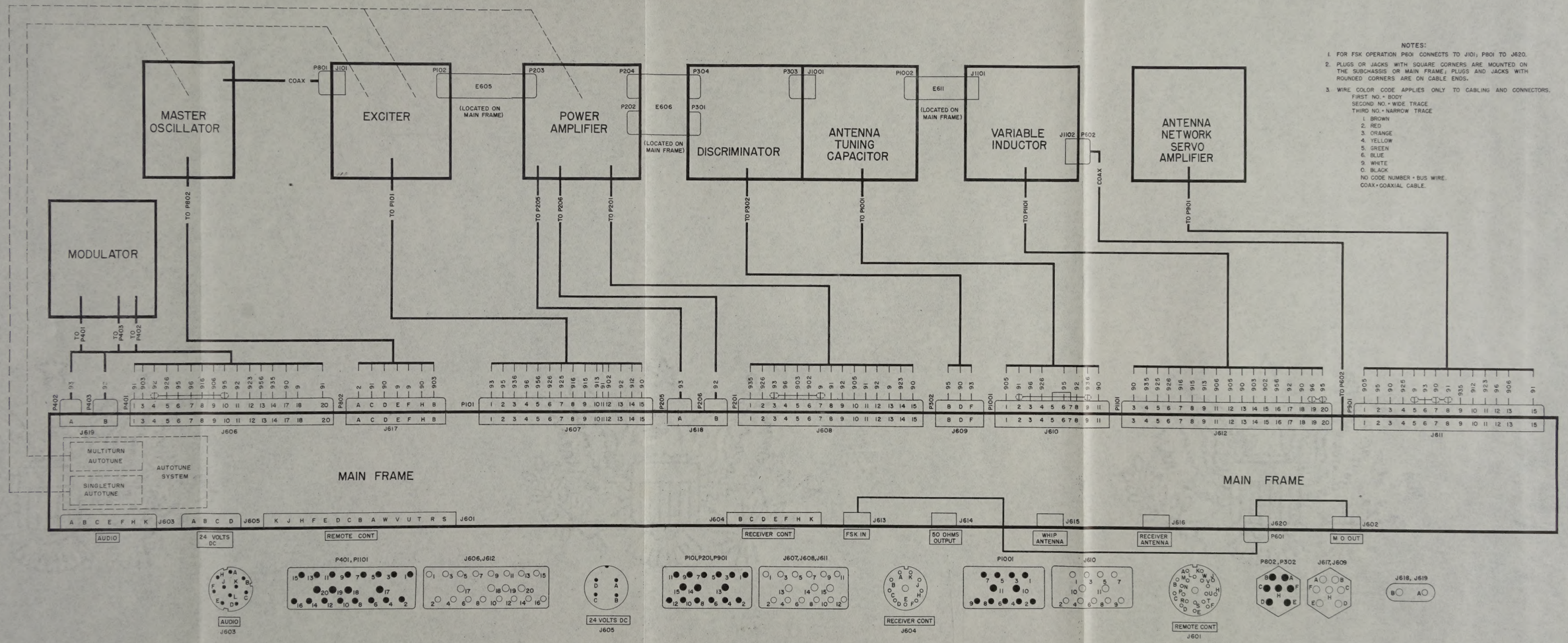
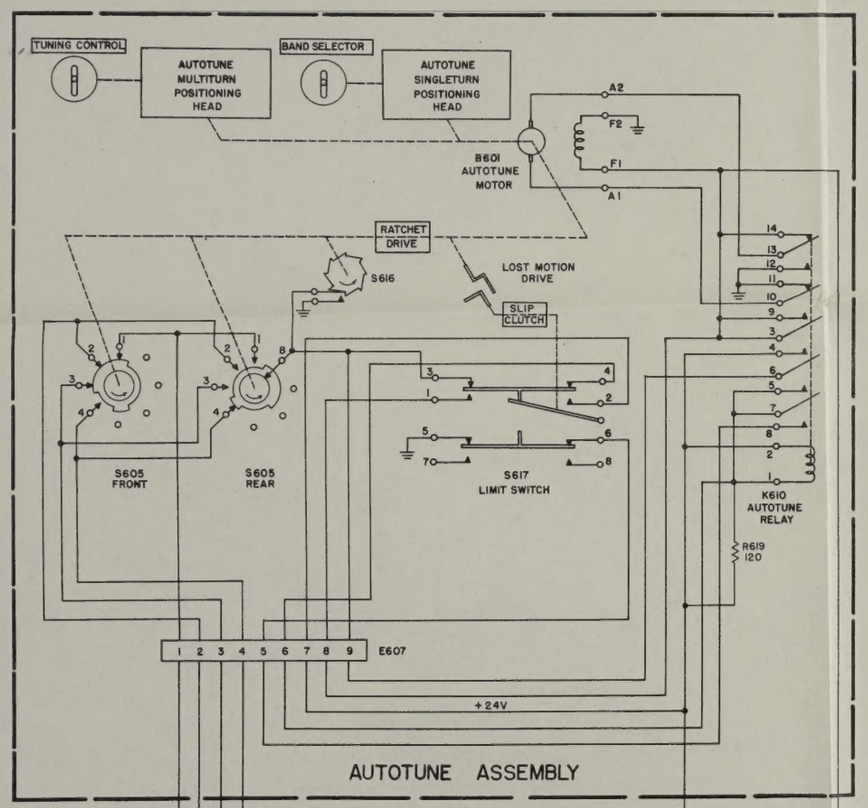


Figure 138. Subchassis interconnection cabling diagram.

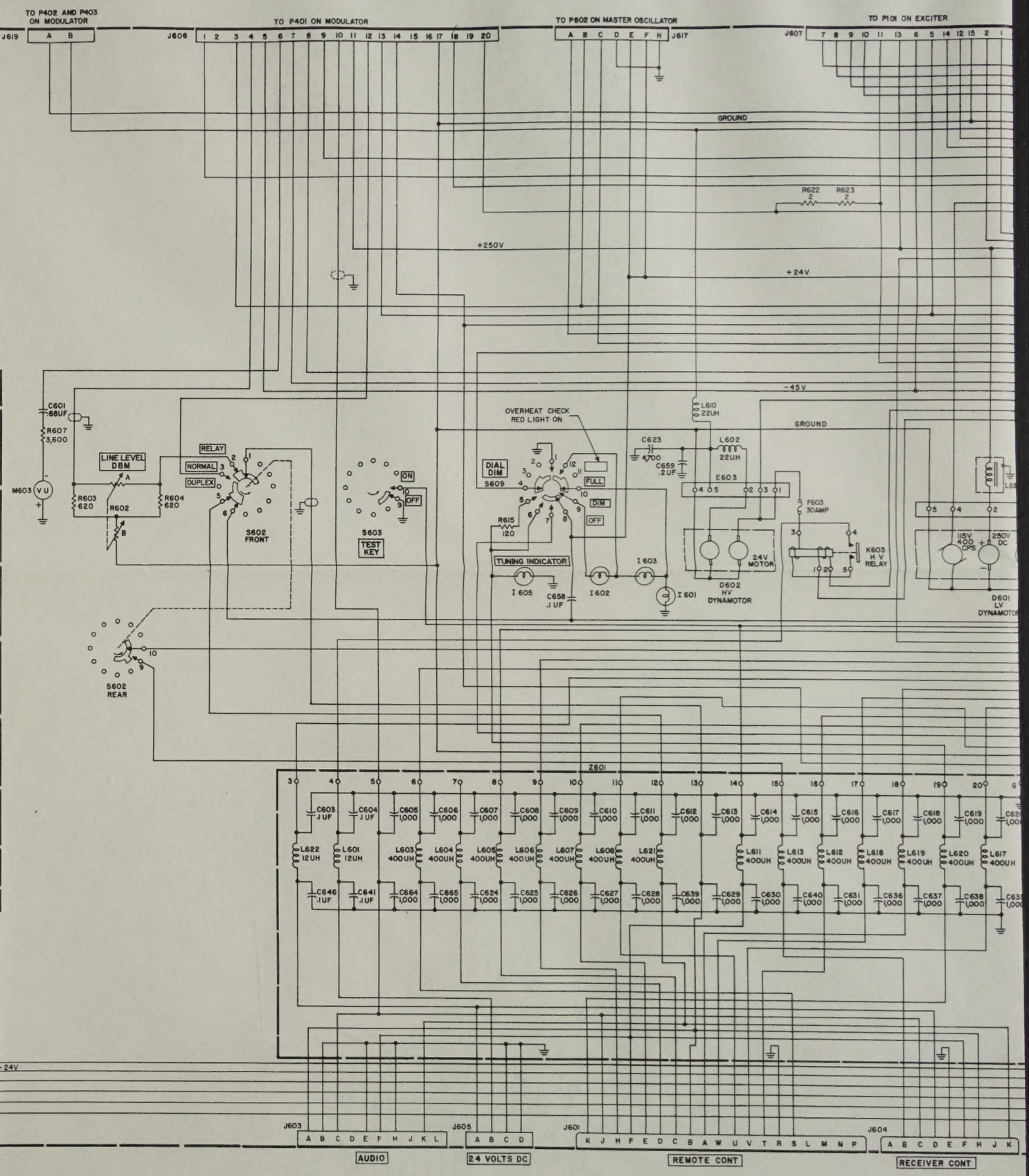
TM806-136

390412 O-56 (In pocket) No. 22

MAIN FRAME



AUTOTUNE ASSEMBLY



MAIN FRAME

TO P402 AND P403 ON MODULATOR

J619 A B

TO P401 ON MODULATOR

J606 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

TO P802 ON MASTER OSCILLATOR

A B C D E F H J617

TO P101 ON EXCITER

J607 7 8 9 10 11 13 6 5 14 12 15 2 1

GROUND

R622 2 R623 2

+250V

+24V

-45V

GROUND

C601 .68UF

R607 3,600

M603 VU

LINE LEVEL DBM

R603 620

R602

R604 620

RELAY

NORMAL

DUPLEX

S602 FRONT

S602 REAR

S603 TEST KEY

ON

OFF

OVERHEAT CHECK RED LIGHT ON

DIAL DIM S609

FULL

DIM

OFF

R615 120

TUNING INDICATOR

I 605

C658 .1 UF

I 602

I 603

I 601

C623 4,700

C659 .2UF

L610 22UH

L602 22UH

E603

24V MOTOR

D602 HV DYNAMOTOR

F603 30AMP

K603 H V RELAY

115V 400 CPS

250V DC

D601 LV DYNAMOTOR

TUNING CONTROL

AUTOTUNE MULTITURN POSITIONING HEAD

BAND SELECTOR

AUTOTUNE SINGLETURN POSITIONING HEAD

B601 AUTOTUNE MOTOR

A2

F2

F1

A1

RATCHET DRIVE

S616

LOST MOTION DRIVE

SLIP CLUTCH

S605 FRONT

S605 REAR

S617 LIMIT SWITCH

K610 AUTOTUNE RELAY

R619 120

E607

1 2 3 4 5 6 7 8 9

+24V

AUTOTUNE ASSEMBLY

Z601

C603 .1 UF

C604 .1 UF

C605 1,000

C606 1,000

C607 1,000

C608 1,000

C609 1,000

C610 1,000

C611 1,000

C612 1,000

C613 1,000

C614 1,000

C615 1,000

C616 1,000

C617 1,000

C618 1,000

C619 1,000

L622 12UH

L601 12UH

L603 400UH

L604 400UH

L605 400UH

L606 400UH

L607 400UH

L608 400UH

L621 400UH

L611 400UH

L613 400UH

L612 400UH

L618 400UH

L619 400UH

L620 400UH

L617 400UH

C646 .1UF

C641 .1UF

C664 1,000

C665 1,000

C624 1,000

C625 1,000

C626 1,000

C627 1,000

C628 1,000

C639 1,000

C629 1,000

C630 1,000

C640 1,000

C631 1,000

C636 1,000

C637 1,000

C638 1,000

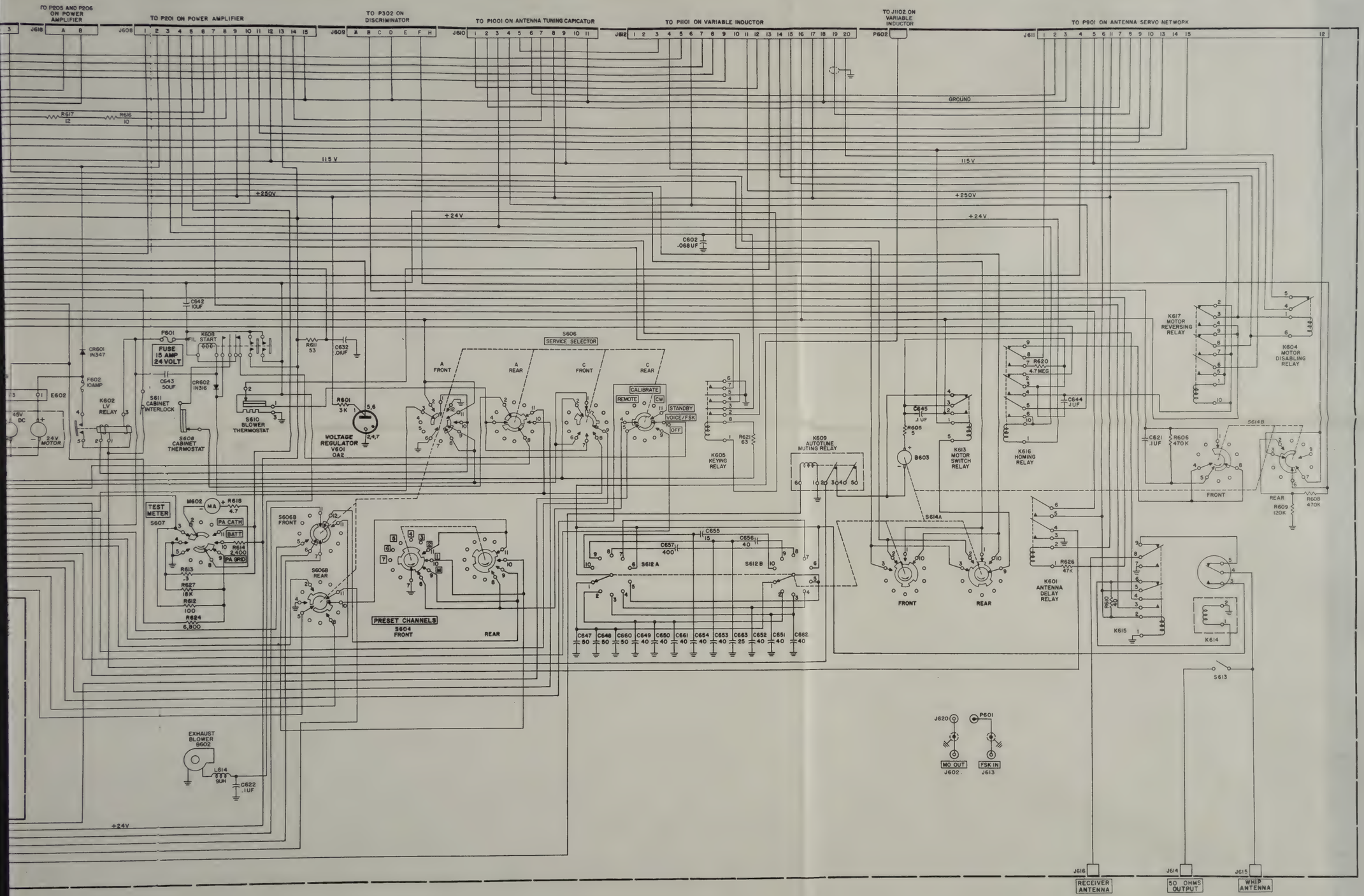
+24V

J603 A B C D E F H J K L — AUDIO

J605 A B C D — 24 VOLTS DC

J601 K J H F E D C B A W U V T R S L M N P — REMOTE CONT

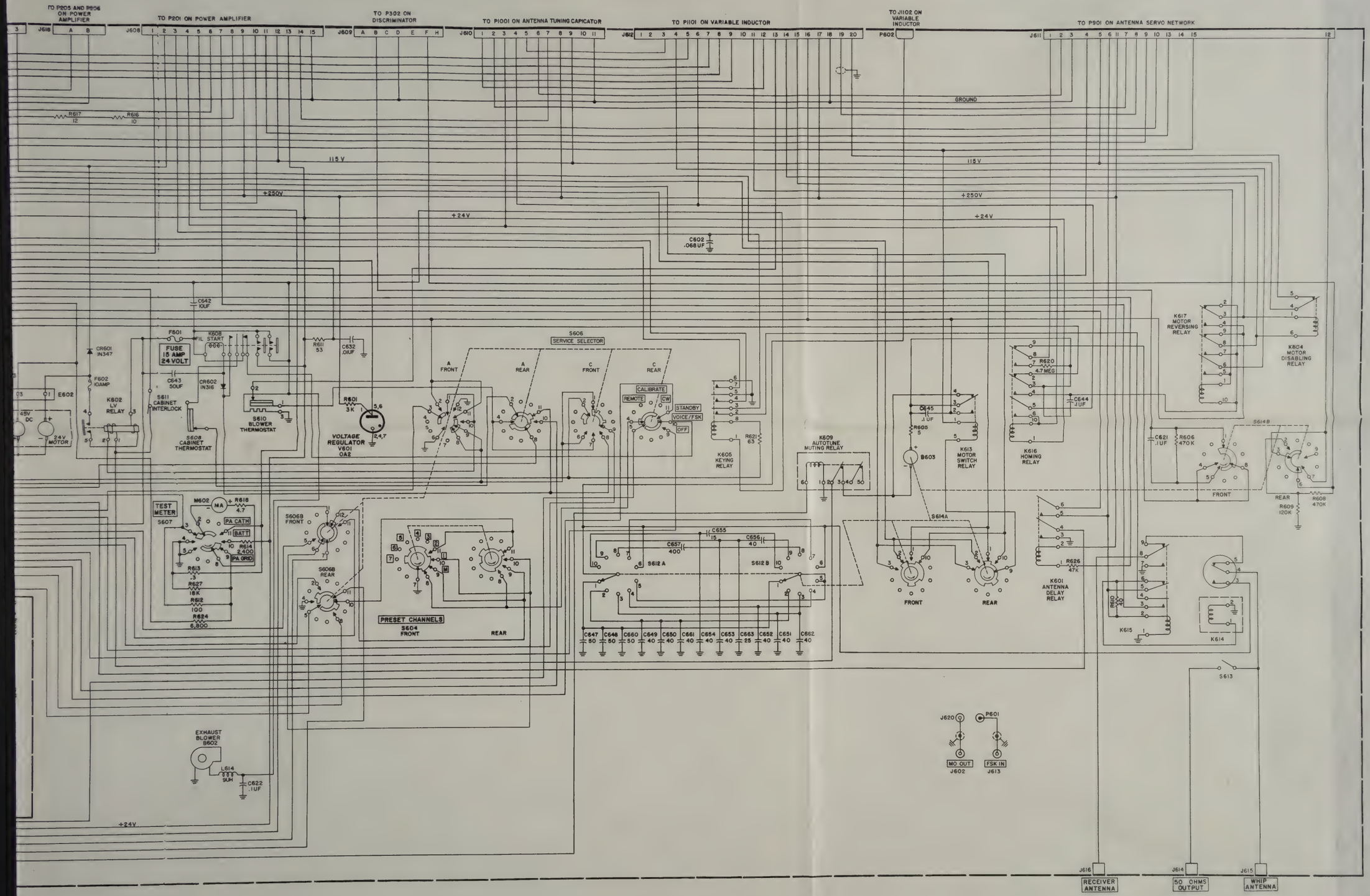
J604 A B C D E F H J K — RECEIVER CONT



NOTES:

1. UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
2. ALL SWITCHES ARE VIEWED FROM THE REAR OF THE EQUIPMENT.
3. SWITCHES ARE SHOWN IN THEIR FULL COUNTERCLOCKWISE POSITIONS, OR POSITIONED FOR THE 1.5 TO 1.7 MC RANGE.
4. RELAYS ARE SHOWN IN THEIR NORMAL POSITIONS WITH POWER REMOVED.

TM806-131



NOTES:

1. UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
2. ALL SWITCHES ARE VIEWED FROM THE REAR OF THE EQUIPMENT.
3. SWITCHES ARE SHOWN IN THEIR FULL COUNTERCLOCKWISE POSITIONS, OR POSITIONED FOR THE 1.5 TO 1.7 MC RANGE.
4. RELAYS ARE SHOWN IN THEIR NORMAL POSITIONS WITH POWER REMOVED.

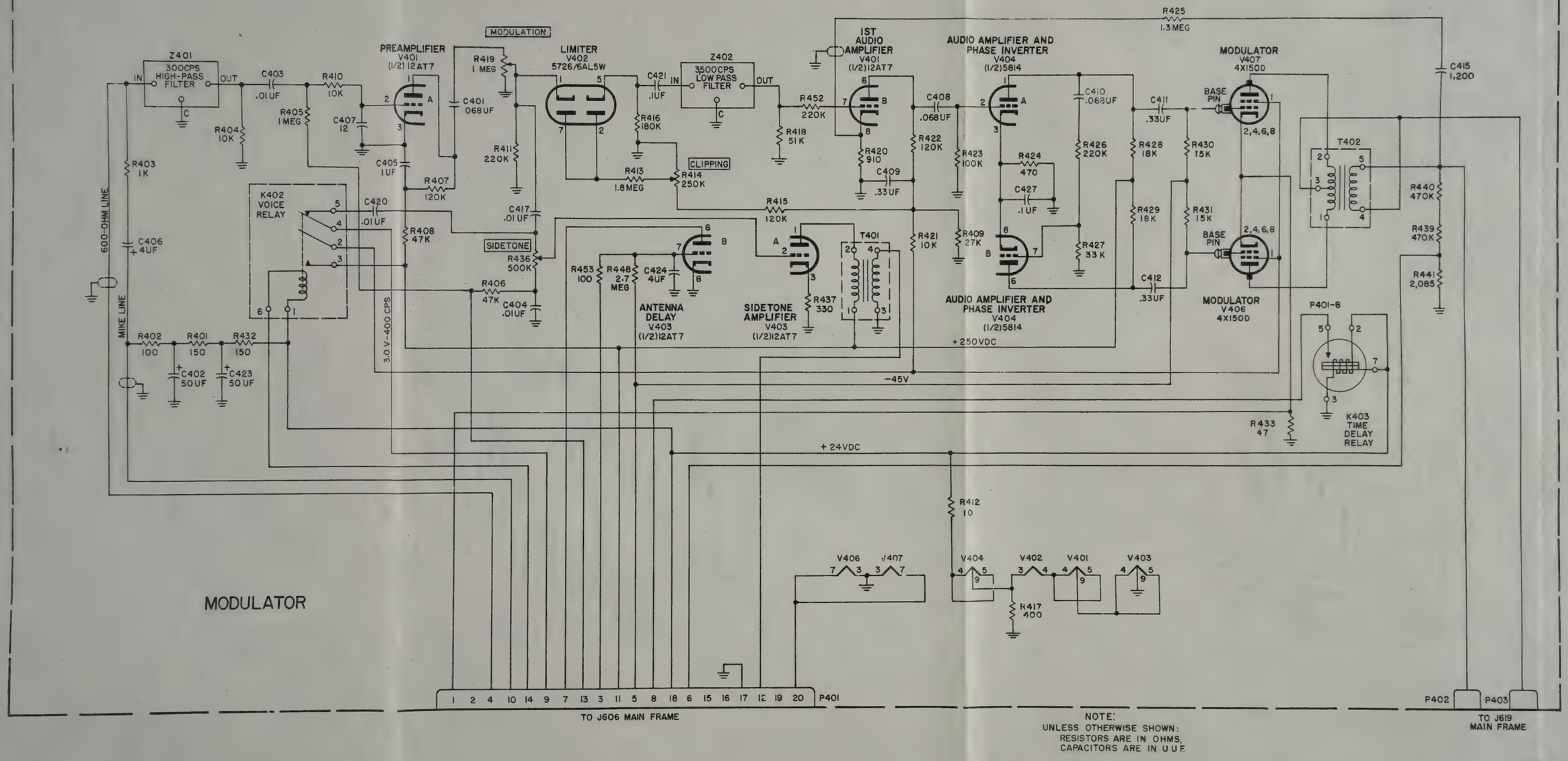


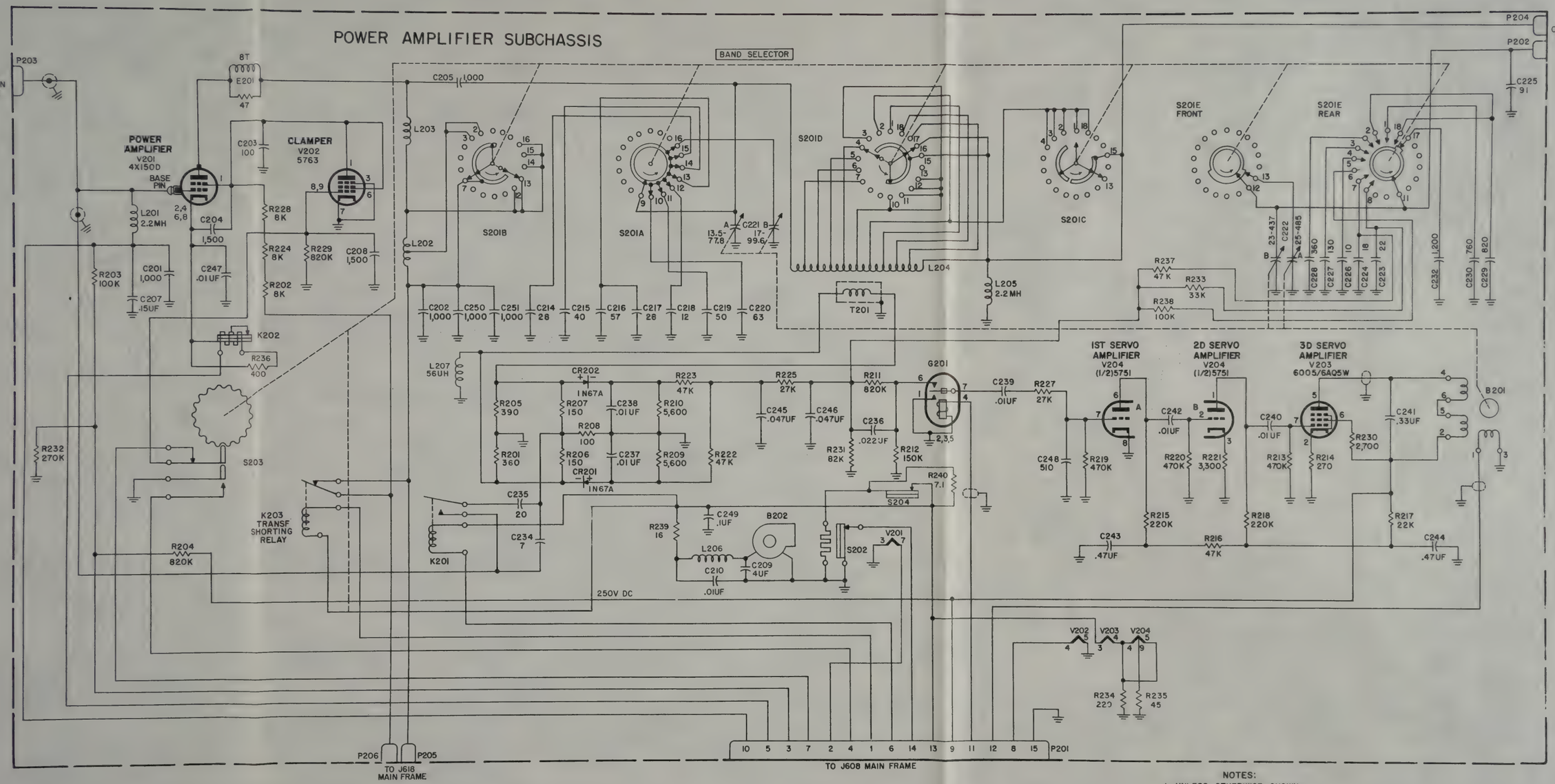
Figure 132. Modulator subchassis, schematic diagram.

MODULATOR

Figure 132. Modulator subchassis, schematic diagram.

TM806-130

390412 O - 56 (In pocket) No. 20



NOTES:
1. UNLESS OTHERWISE SHOWN: RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
2. S201 IS SHOWN AS VIEWED FROM REAR OF EQUIPMENT AND POSITIONED FOR THE 1.5 TO 1.7 MC RANGE

TM806-128

Figure 131. Power amplifier subchassis, schematic diagram.

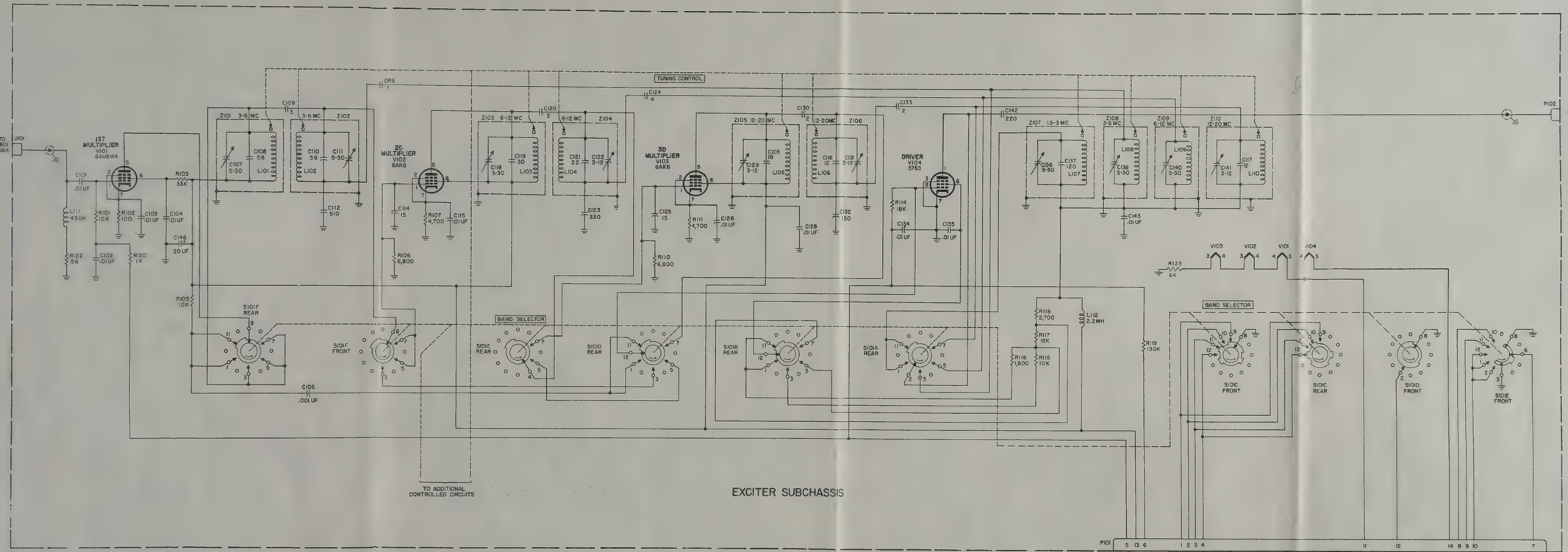


Figure 139. Exciter subchassis, schematic diagram.

TM806-127

390412 O - 56 (In pocket) No. 18

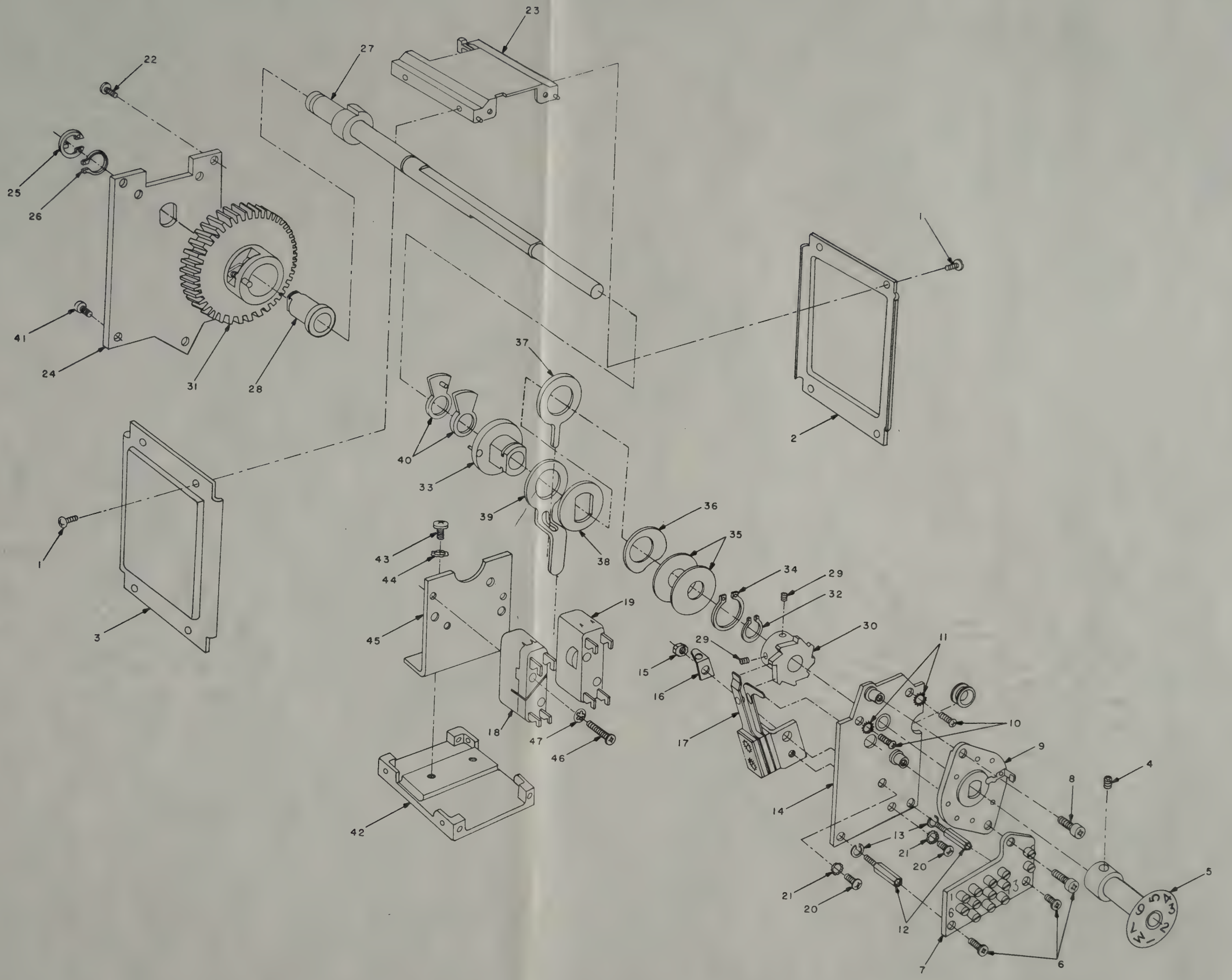


Figure 115. Disassembly of Autotune control head.

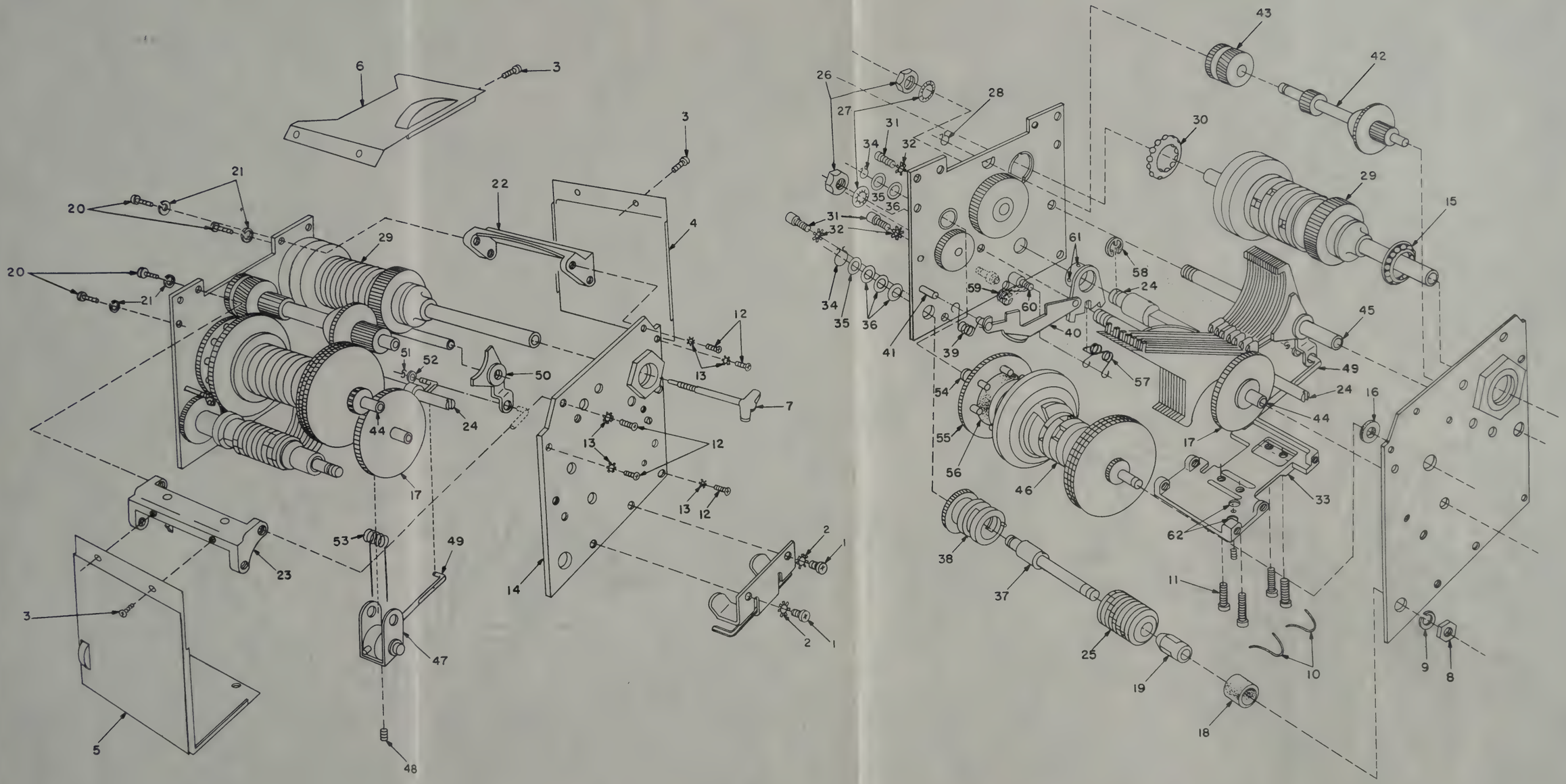
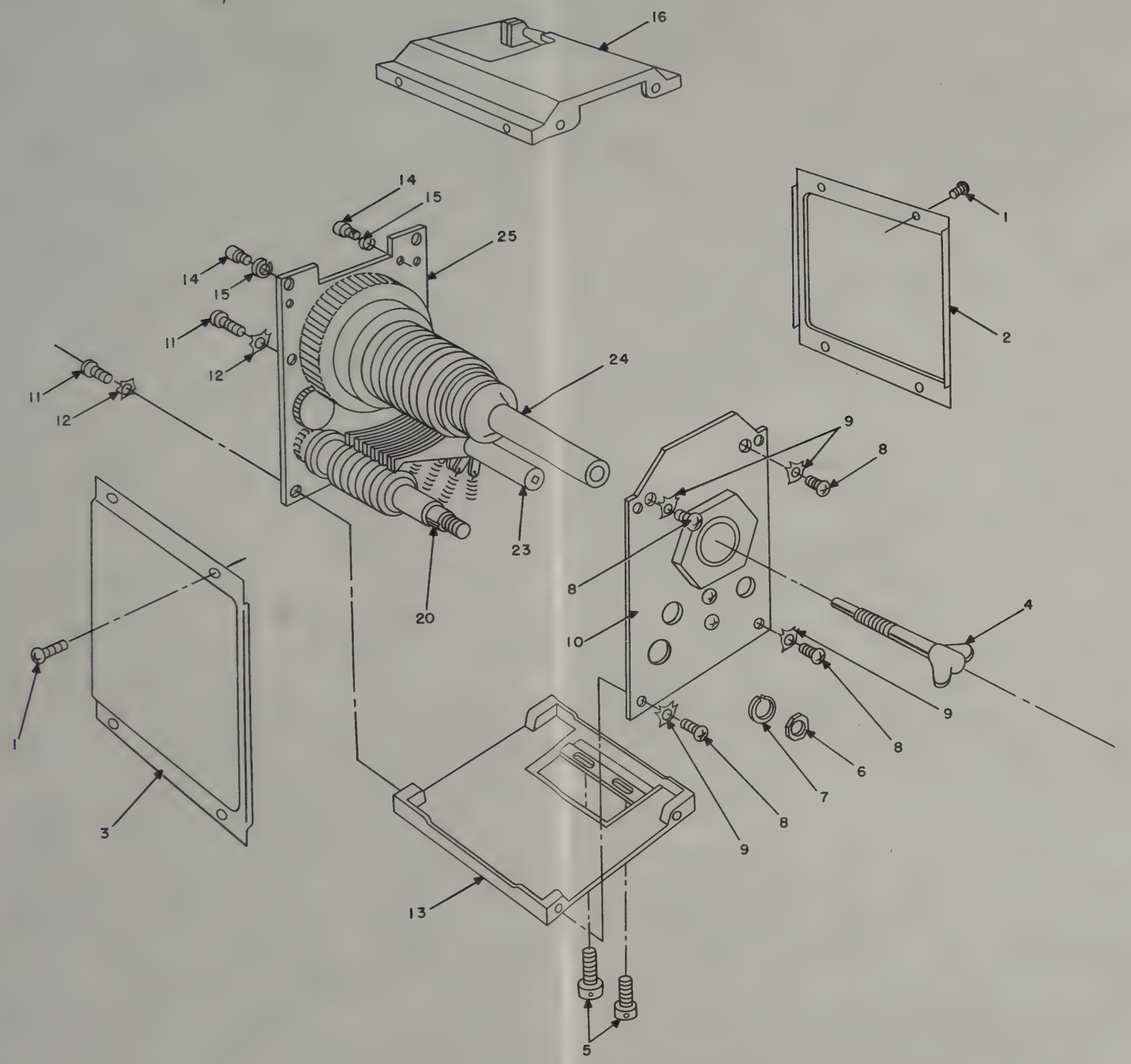


Figure 114. Disassembly of Autotune multiturn head.



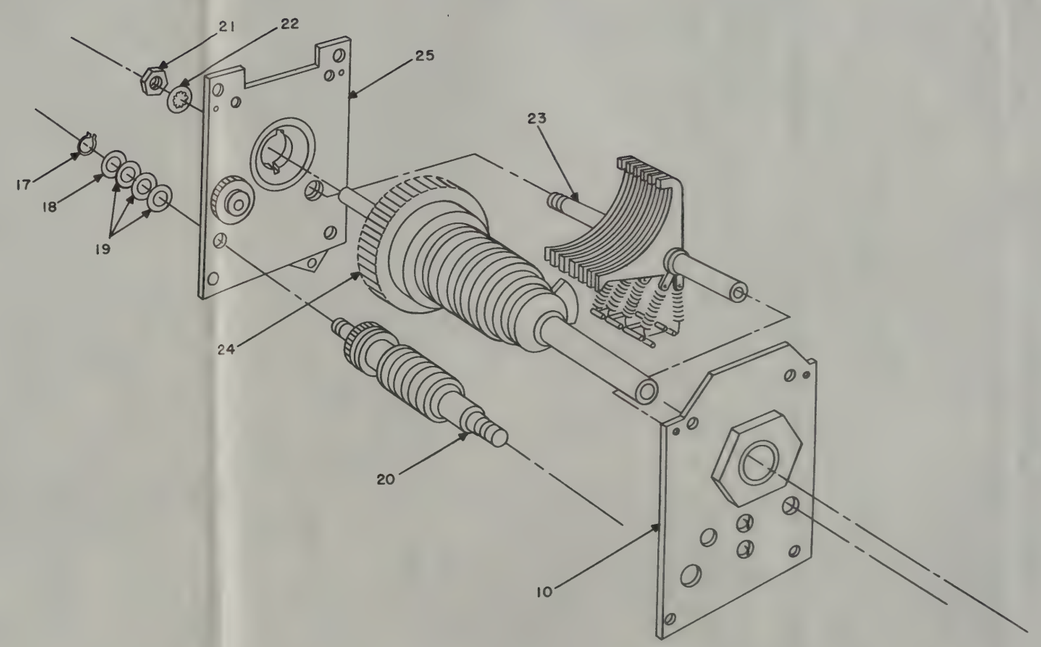


Figure 113. Disassembly of Autotune singleturn head

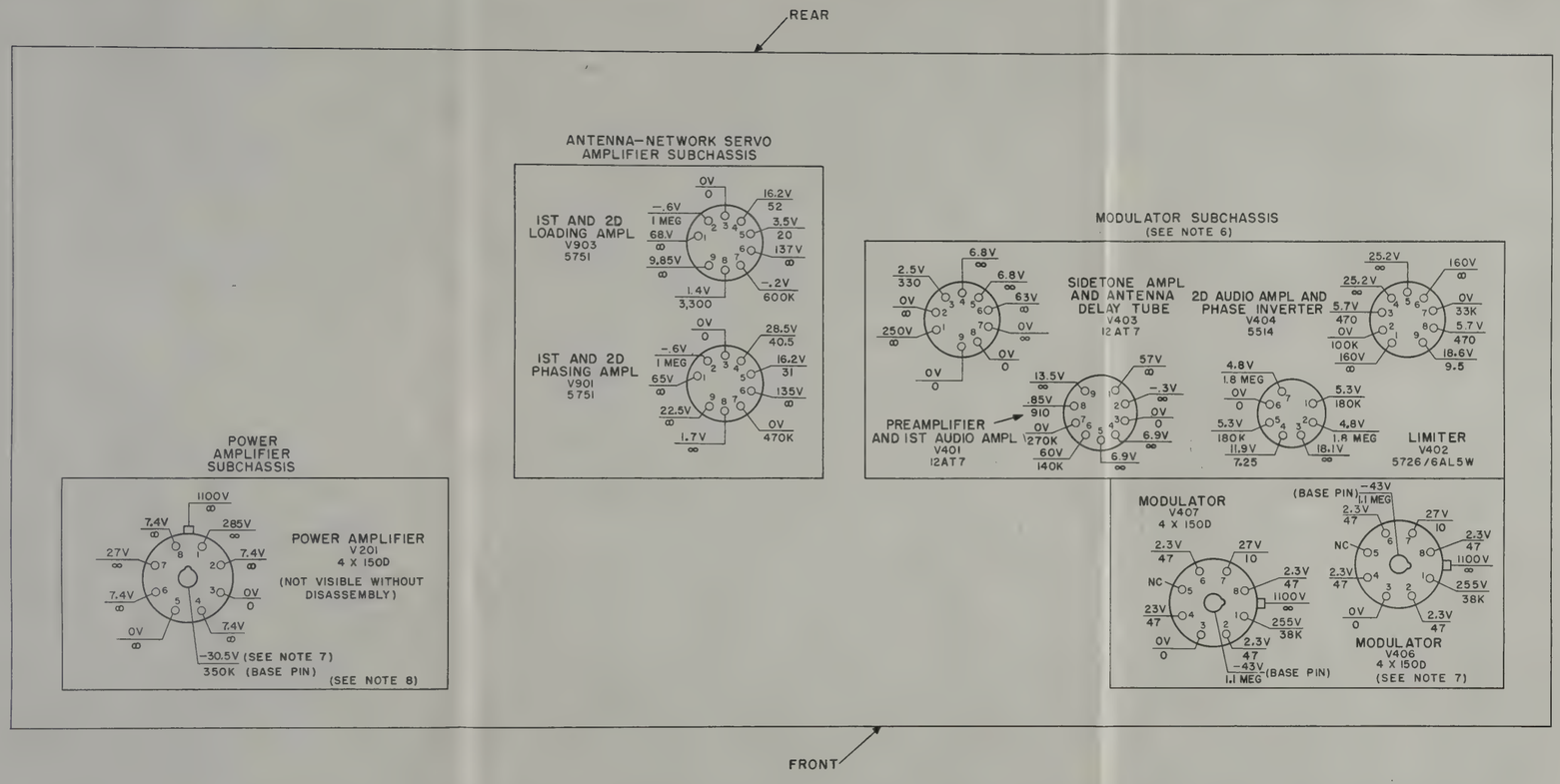


Figure 105. Radio Transmitter T-195/GRC-19, bottom deck, tube voltage and resistance diagram.

NOTES:

1. UNLESS OTHERWISE SHOWN, RESISTANCES ARE IN OHMS AND ARE MEASURED FROM SOCKET PIN TO GROUND WITH A 20,000-OHMS-PER-VOLT METER, AND WITH THE SUBCHASSIS PLUGS DISCONNECTED FROM THE MAIN FRAME. VOLTAGES ARE DC AND ARE MEASURED FROM SOCKET PIN TO GROUND WITH A VTVM AND WITH THE SUBCHASSIS CONNECTED TO MAIN FRAME, USING THE REQUIRED BENCH-TEST CABLE.
2. NC INDICATES NO CONNECTION.
3. ∞ INDICATES INFINITY.
4. UNLESS OTHERWISE NOTED, ALL RESISTANCE MEASUREMENTS ARE TAKEN WITH THE [SERVICE SELECTOR] AT [OFF], AND THE [BAND SELECTOR] AND [TUNING CONTROL] SET FOR 18.000 MC AS SHOWN ON THE FREQUENCY INDICATOR. ALL VOLTAGE MEASUREMENTS ARE TAKEN AT 18 MC WITH THE CONTROLS SET AS FOLLOWS: [DIAL DIM] AT [FULL], [TEST KEY] AT [ON], [LINE LEVEL] AT [-34], [RELAY-NORMAL-DUPLEX] AT [NORMAL], AND [SERVICE SELECTOR] AT [CW].
5. THIS MEASUREMENT TAKEN WITH [TEST KEY] AT [OFF].
6. VOLTAGE MEASUREMENT FOR THE MODULATOR SUBCHASSIS ARE MADE WITH [SERVICE SELECTOR] AT [VOICE] AND NO MODULATION INPUT TO THE TRANSMITTER.
7. THE MEASUREMENTS FOR THE PLATES OF V406 AND V407 ARE TAKEN AT TERMINALS 2 AND 1 RESPECTIVELY OF T402
8. MEASUREMENTS FOR SOCKET PINS 2,5,7 AND BASE PIN OF V201 ARE TAKEN AT TERMINALS E205, E207, E206, AND E208 RESPECTIVELY LOCATED ON SHIELD NEAR SOCKET XV201
9. ALL TUBES IN EACH SUBCHASSIS REMOVED.

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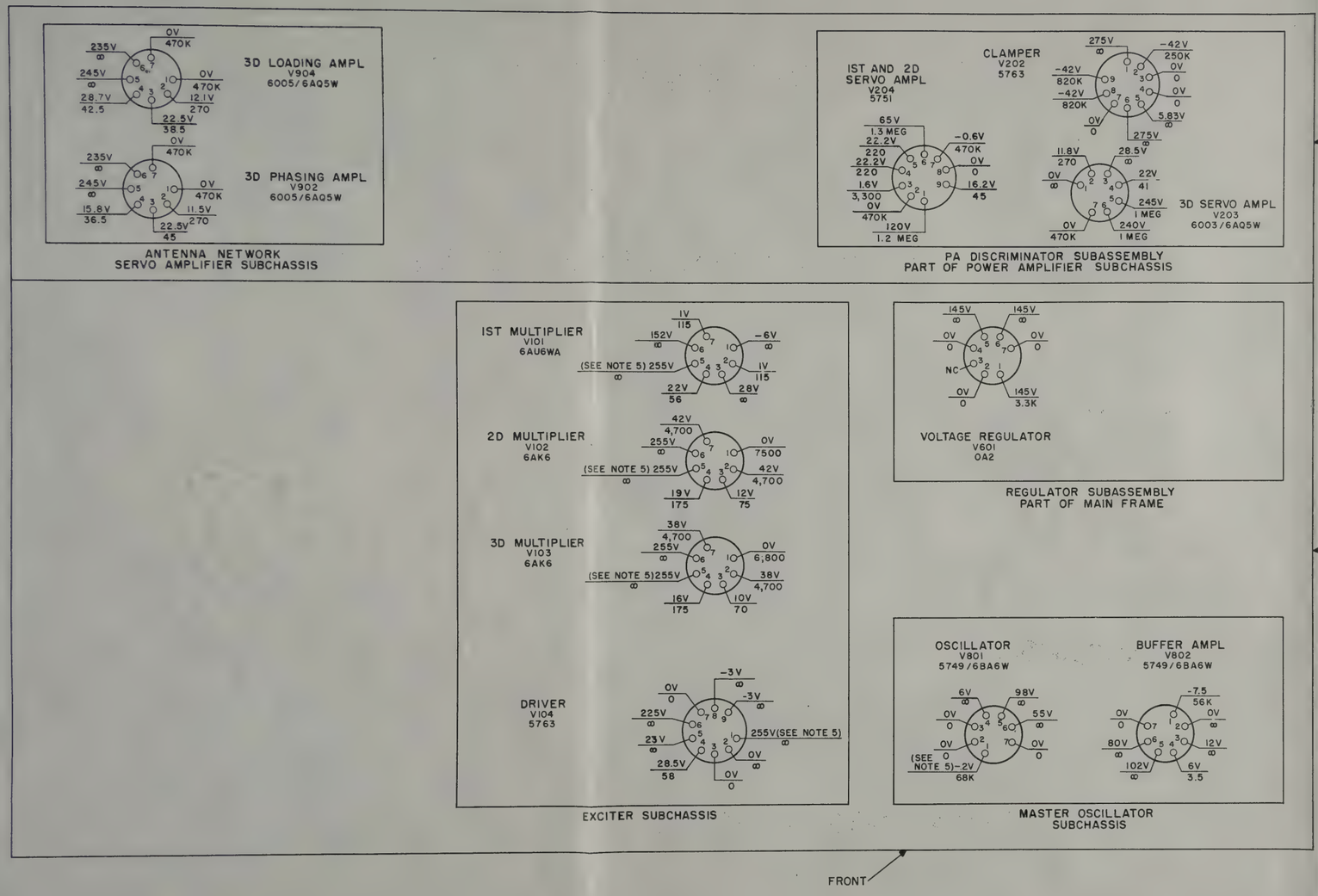
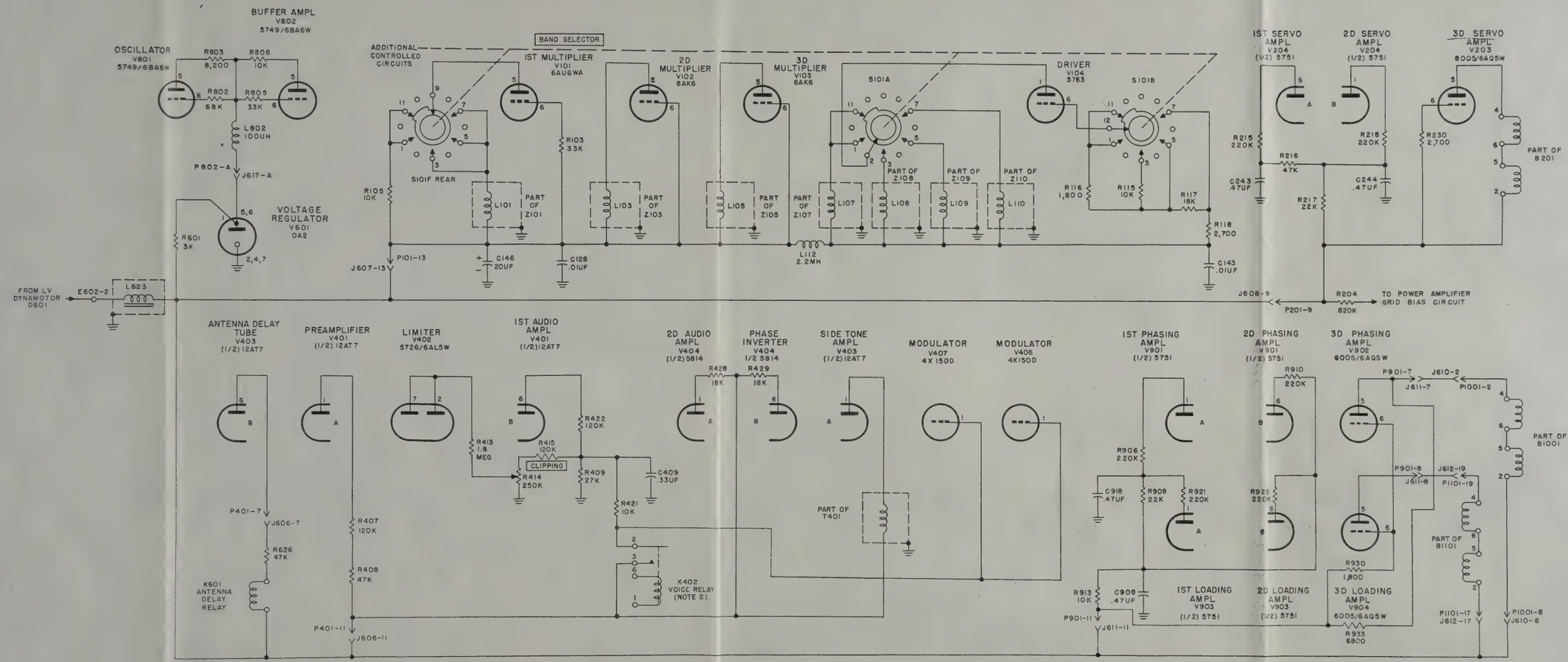


Figure 104. Radio Transmitter T-195/GRC-19, top deck, tube voltage and resistance diagram.

NOTES:

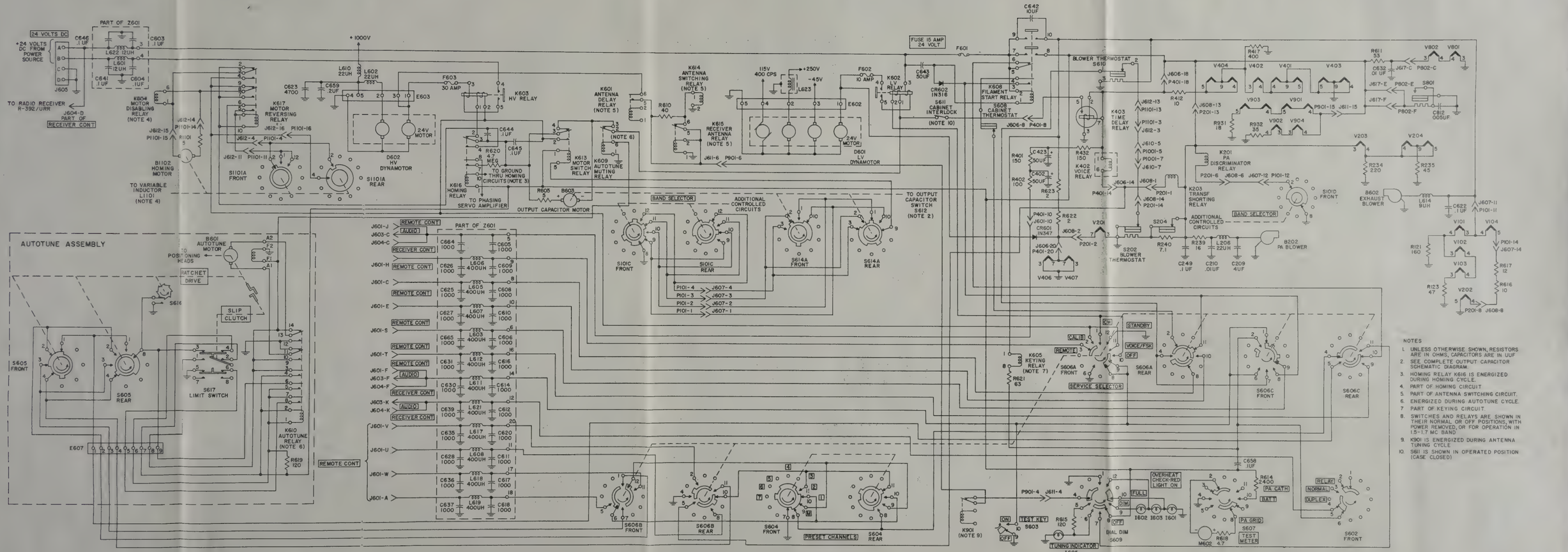
1. UNLESS OTHERWISE SHOWN, RESISTANCES ARE IN OHMS AND ARE MEASURED FROM SOCKET PIN TO GROUND WITH A 20,000-OHMS-PER-VOLT METER AND WITH THE SUBCHASSIS PLUGS DISCONNECTED FROM THE MAIN FRAME.
   VOLTAGES ARE DC AND ARE MEASURED FROM SOCKET PIN TO GROUND WITH A VTVM AND WITH SUBCHASSIS CONNECTED TO MAIN FRAME, USING THE REQUIRED BENCH-TEST CABLE.
2. NC INDICATES NO CONNECTION.
3. ∞ INDICATES INFINITY.
4. UNLESS OTHERWISE NOTED, ALL RESISTANCE MEASUREMENTS ARE TAKEN WITH THE [SERVICE SELECTOR] AT [OFF], AND THE [BAND SELECTOR] AND [TUNING CONTROL] SET FOR 18.000 MC AS SHOWN ON THE FREQUENCY INDICATOR.
   ALL VOLTAGE MEASUREMENTS ARE TAKEN AT 18 MC WITH THE CONTROL SET AS FOLLOWS: [DIAL DIM] AT [FULL], [TEST KEY] AT [ON], [LINE LEVEL] AT [-34], [RELAY-NORMAL-DUPLEX] AT [NORMAL], AND [SERVICE SELECTOR] AT [CW].
5. THIS MEASUREMENT TAKEN WITH [TEST KEY] AT [OFF].
6. ALL TUBES IN EACH SUBCHASSIS REMOVED.



NOTES:

1. UNLESS OTHERWISE SHOWN: RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
2. K402 IS ENERGIZED IN VOICE/FSK OPERATION.

Figure 63. +250-volt distribution, function diagram.



NOTES

1. UNLESS OTHERWISE SHOWN, RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF
2. SEE COMPLETE OUTPUT CAPACITOR SCHEMATIC DIAGRAM.
3. HOMING RELAY K616 IS ENERGIZED DURING HOMING CYCLE.
4. PART OF HOMING CIRCUIT
5. PART OF ANTENNA SWITCHING CIRCUIT.
6. ENERGIZED DURING AUTOTUNE CYCLE.
7. PART OF KEYING CIRCUIT.
8. SWITCHES AND RELAYS ARE SHOWN IN THEIR NORMAL OR OFF POSITIONS, WITH POWER REMOVED, OR FOR OPERATION IN 1.5-1.7 MC BAND
9. K901 IS ENERGIZED DURING ANTENNA TUNING CYCLE
10. S611 IS SHOWN IN OPERATED POSITION (CASE CLOSED)

Figure 61. +24-volt distribution, functional diagram.

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PRESET CHANNEL S SWITCH S604 IS ROTATED TO A NEW CHANNEL POSITION

1

A GROUND PATH TO COIL OF K610 IS ESTABLISHED THROUGH S604, S605, AND CONTACTS 3 AND 4 OF S617

RELAY K610 IS ENERGIZED

2

AN ALTERNATE GROUND PATH TO COIL OF K610 IS ESTABLISHED THROUGH CONTACTS 7 AND 8 OF K610 AND 6 AND 5 OF S617

3

AN ALTERNATE GROUND PATH TO COIL OF K610 IS ESTABLISHED THROUGH CONTACTS 5 AND 6 OF K610 AND OPEN-CIRCUIT-SEEKING SWITCHES S606 AND S604

+24V IS APPLIED TO TERM. F1 AND A1 OF MOTOR B601 THROUGH CONTACTS 4 AND 3 OF K610; AND TO A1 THROUGH CONTACTS 4,3,9, AND 10 OF K610

A GROUND IS CONNECTED TO TERM. A2 OF MOTOR B601 THROUGH CONTACTS 12 AND 13 OF K610

+24V IS APPLIED TO K609 THROUGH CONTACTS 4 AND 3 OF K610

AUTOTUNE MOTOR B601 ROTATES IN FIRST DIRECTION

THE OUTPUT CAPACITOR SELECTION C CIRCUITS, HOMING CIRCUITS, AND H CIRCUITS ARE DISABLED UNTIL AUTOTUNE CYCLE IS COMPLETED

THE CAM DRUMS OF POSITIONING HEADS ARE ROTATED IN FIRST DIRECTION

THE LOST MOTION DRIVE ROTATES IN FIRST DIRECTION

WHEN LOST MOTION DRIVE IS ENGAGED, THE ARM OF S617 MOVES IN FIRST DIRECTION CONTACTS 3 AND 4 OPEN, 1 AND 2 CLOSE

4

THE GROUND PATH OF BLOCK 1 IS BROKEN, AND AN ALTERNATE 24V PATH TO F1 OF B601 IS ESTABLISHED THROUGH CONTACTS 1 AND 2 OF S617

THE LOST MOTION DRIVE CONTINUES TO ROTATE UNTIL THE ALTERNATE GROUND PATH OF BLOCK 2 IS BROKEN

THE LOST MOTION DRIVE CONTINUES TO ROTATE, BUT SLIP CLUTCH SLIPS UNTIL B601 REVERSES

THE ARM OF S617 REMAINS STATIONARY WHILE THE LOST MOTION DRIVE MAKES ONE COMPLETE REVOLUTION IN SECOND DIRECTION

THE LOST MOTION DRIVE FINALLY ENGAGES THE ARM OF S617; THE ARM IS MOVED IN SECOND DIRECTION

THE ALTERNATE 24V PATH TO B601 (BLOCKS 4 AND 5) IS BROKEN. B601 BECOMES DE-ENERGIZED

S617 IS NOW IN ITS ORIGINAL POSITION, READY FOR A NEW CYCLE OF AUTOTUNE OPERATION

THE GROUND IS MAINTAINED WHEN S605 BREAKS THE GROUND PATH TO K610

THE GROUND PATH TO K610 IS MAINTAINED

5

THE GROUND PATH TO K610 IS MAINTAINED, EXCEPT WHEN S605 ROTATES THROUGH ITS ONE "OPEN" POSITION

THE GROUND IS MAINTAINED (AS IN BLOCK 6)

S605 ROTATES IN FIRST DIRECTION

THE STOP RING DRUMS AND COUNTER DRUM OF POSITIONING HEAD ARE ROTATED IN FIRST DIRECTION TO THEIR "HOME" POSITIONS

S605 CONTINUES TO ROTATE

S605 CONTINUES TO ROTATE

S605 CONTINUES TO ROTATE

S605 ROTATES UNTIL ITS GROUND PATH OF BLOCK 3 IS BROKEN AT ITS ONE "OPEN" POSITION

RELAY K610 BECOMES DE-ENERGIZED. THE ALTERNATE +24V OF BLOCK 4 IS APPLIED TO TERM. A2 THROUGH CONTACTS 13 AND 14 OF K610. A GROUND IS APPLIED TO TERM. A1 THROUGH CONTACTS 10 AND 11 OF K610

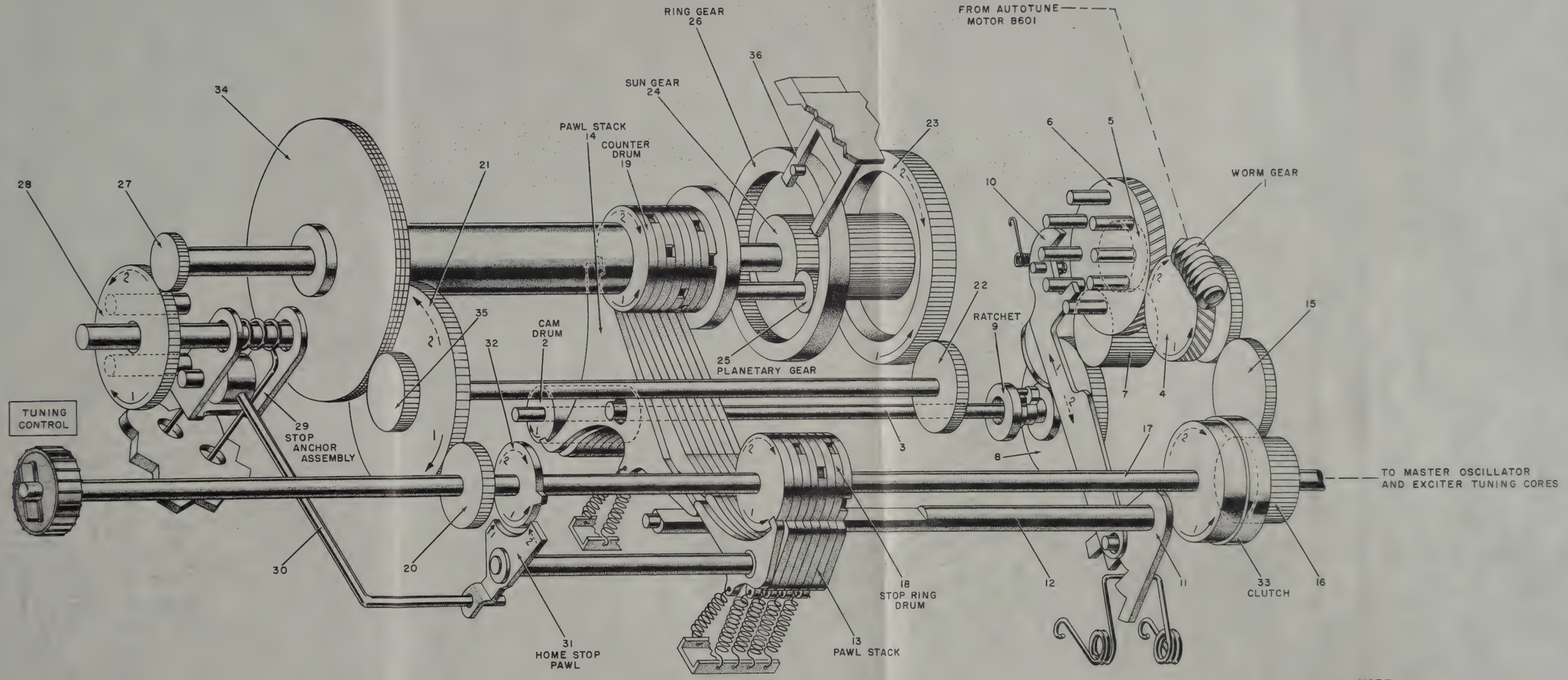
B601 ROTATES IN SECOND DIRECTION

S605 IS LEFT STATIONARY, DUE TO RATCHET DRIVE; IT IS NOW PROPERLY POSITIONED ACCORDING TO CHANNEL SELECTED

THE STOP RING DRUMS AND COUNTER DRUM OF POSITIONING HEADS ROTATE IN SECOND DIRECTION UNTIL STOP RING DRUM ROTATION IS STOPPED. BAND SWITCHES AND TUNING CORES ARE NOW PROPERLY POSITIONED FOR CHANNEL SELECTED

THE CAM DRUMS OF POSITIONING HEADS ARE LEFT STATIONARY, PROPERLY POSITIONED ACCORDING TO CHANNEL SELECTED

Figure 58. Autotune circuits, flow chart.



NOTE:

THIS IS A REPRESENTATIVE DRAWING.
PARTS ARE NOT NECESSARILY DRAWN
TO SCALE.

TM 806-54

Figure 57. Multiturn positioning head, representative drawing.

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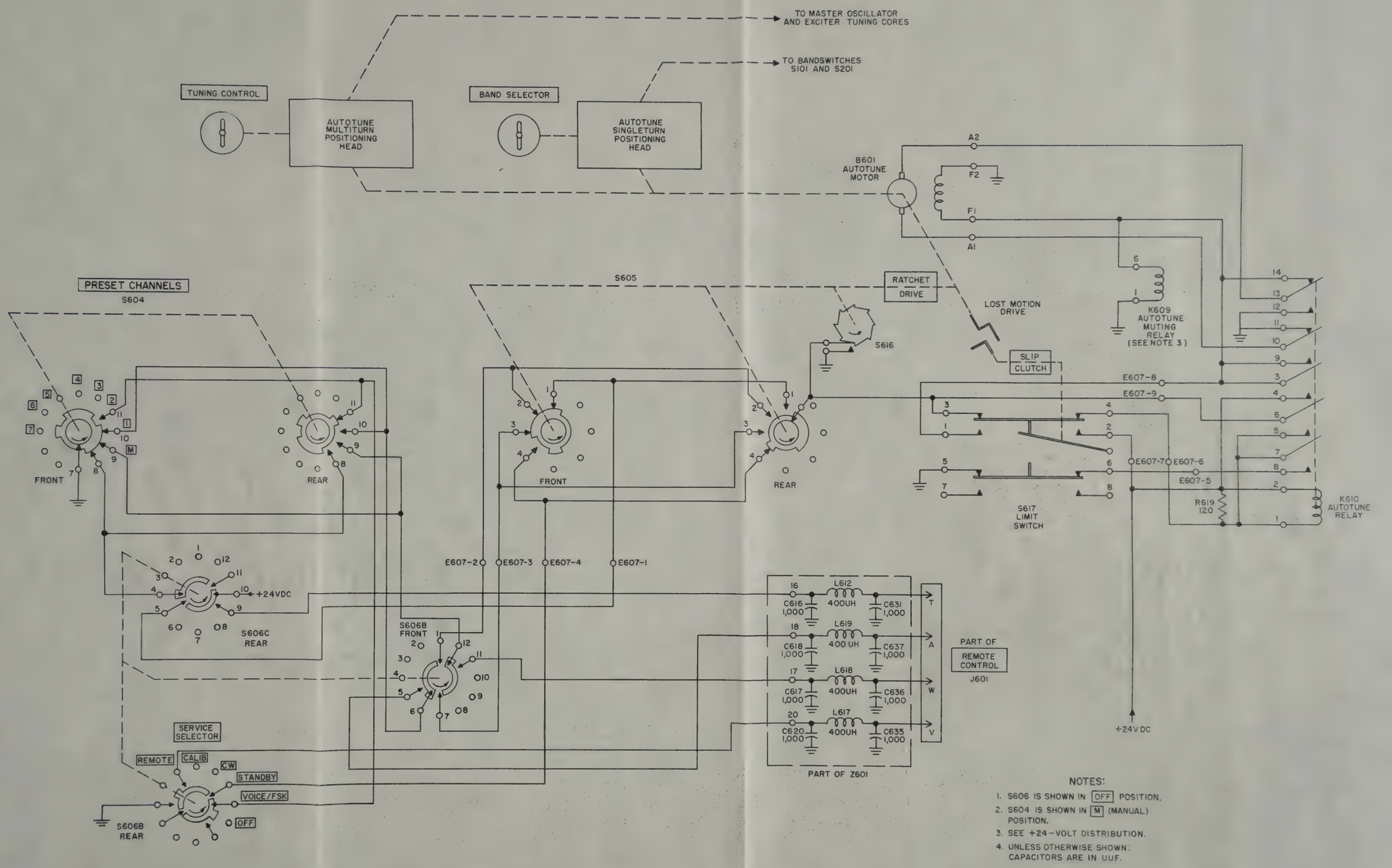
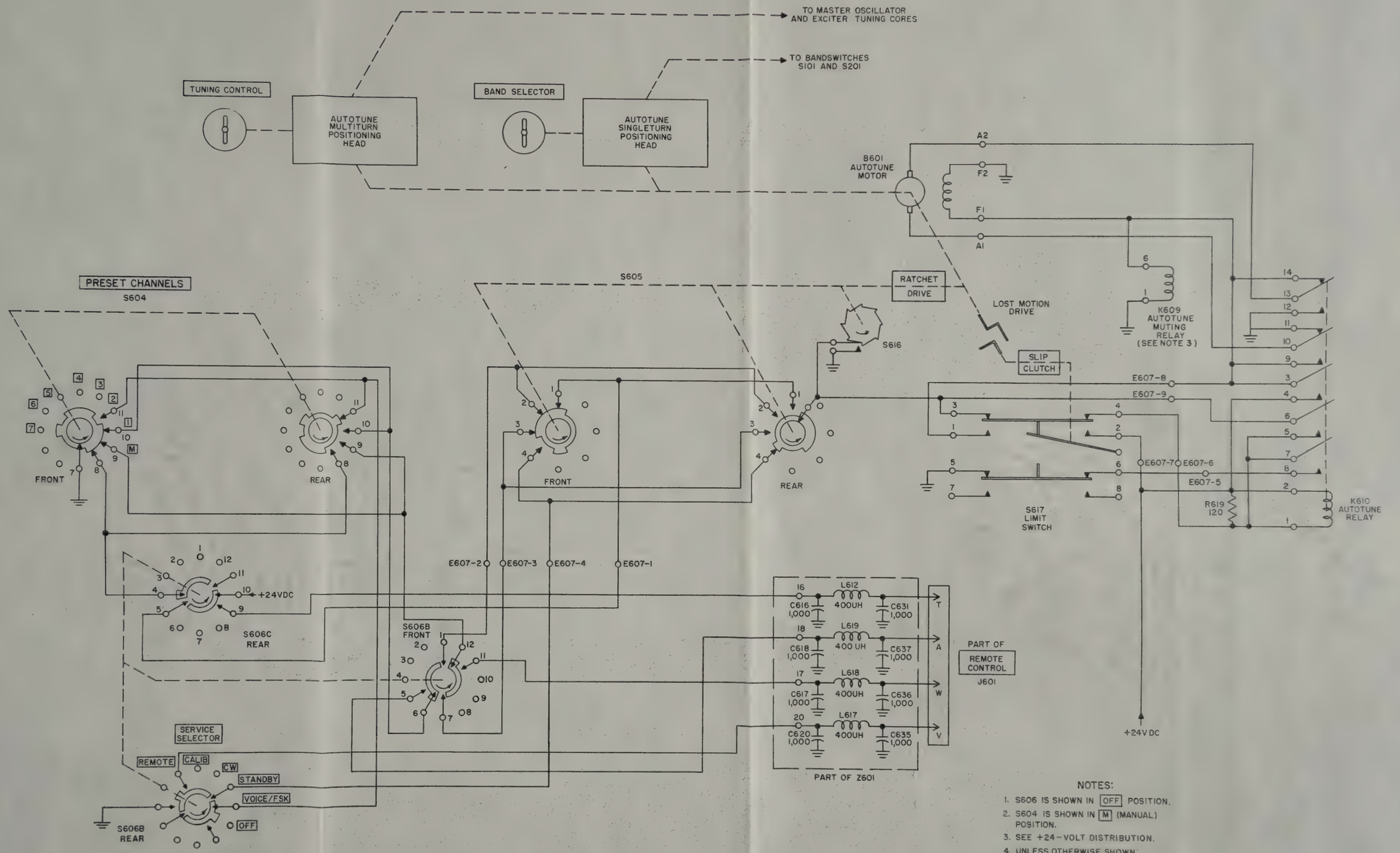


NOTES:

1. S606 IS SHOWN IN OFF POSITION.
2. S604 IS SHOWN IN M (MANUAL) POSITION.
3. SEE +24-VOLT DISTRIBUTION.
4. UNLESS OTHERWISE SHOWN: CAPACITORS ARE IN UUF.

Figure 55. Autotune control circuits, functional diagram.

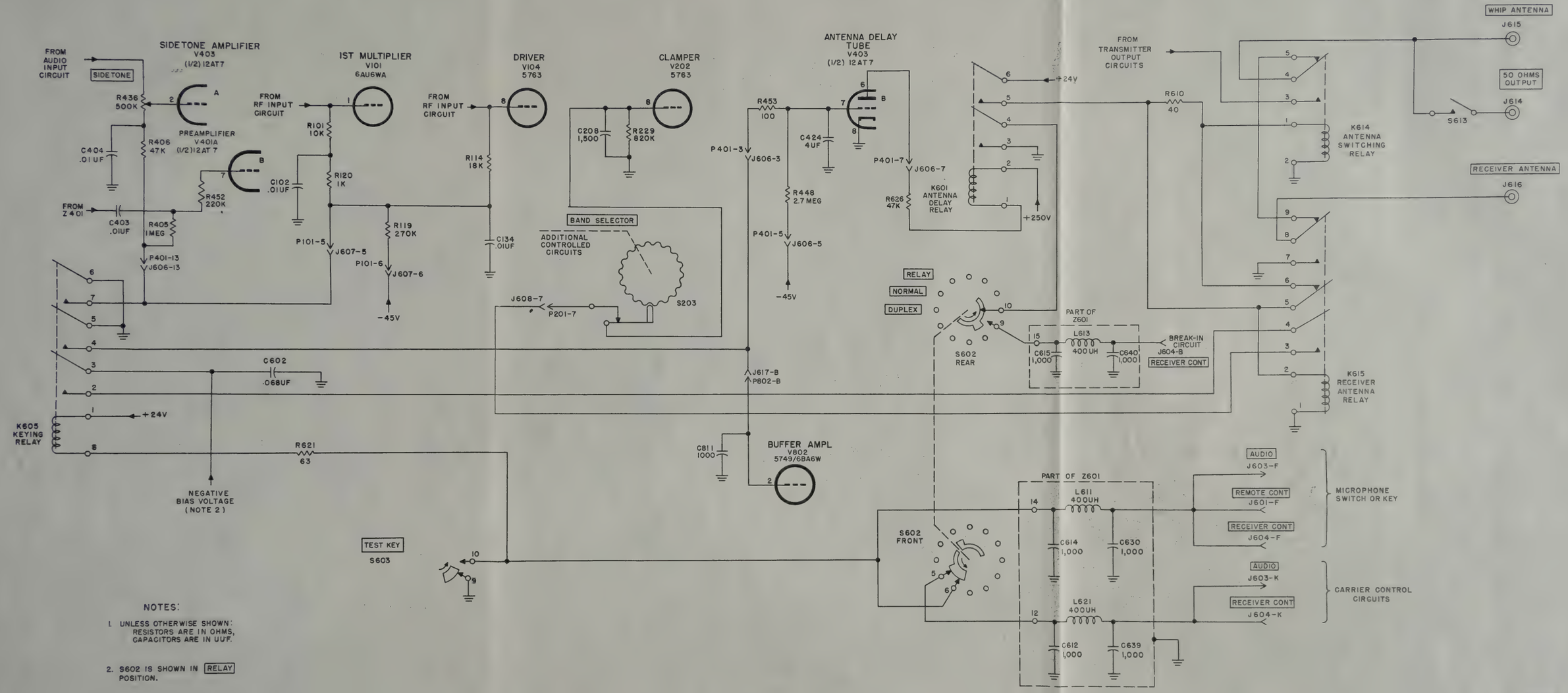


NOTES:

1. S606 IS SHOWN IN [OFF] POSITION.
2. S604 IS SHOWN IN [M] (MANUAL) POSITION.
3. SEE +24-VOLT DISTRIBUTION.
4. UNLESS OTHERWISE SHOWN: CAPACITORS ARE IN UUF.

Figure 55. Autotune control circuits, functional diagram.

TM 806-52



NOTES:

1. UNLESS OTHERWISE SHOWN: RESISTORS ARE IN OHMS, CAPACITORS ARE IN UUF.
2. S602 IS SHOWN IN RELAY POSITION.

Figure 54. Antenna switch and keying circuits, functional diagram.

TM 806-51

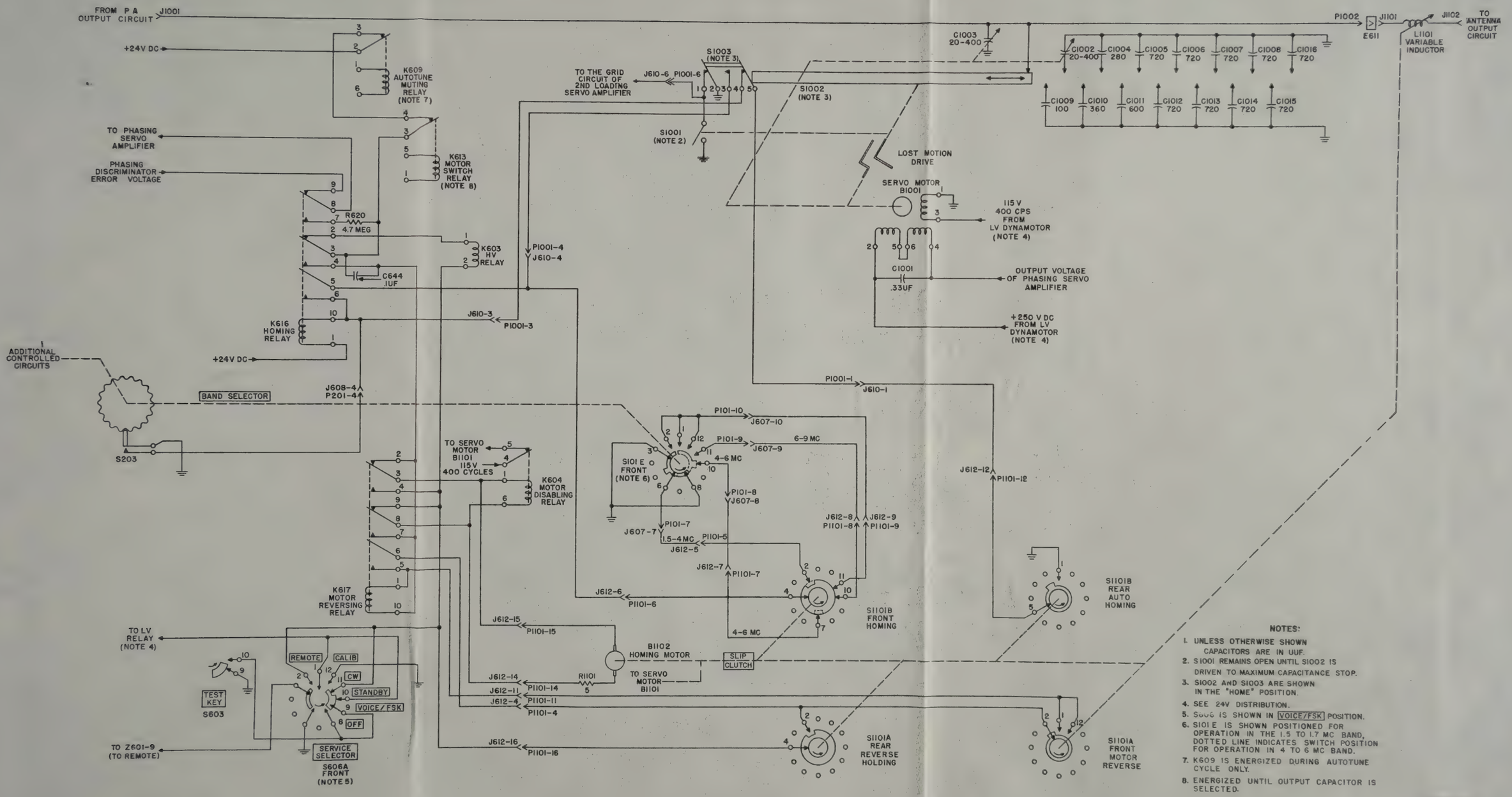
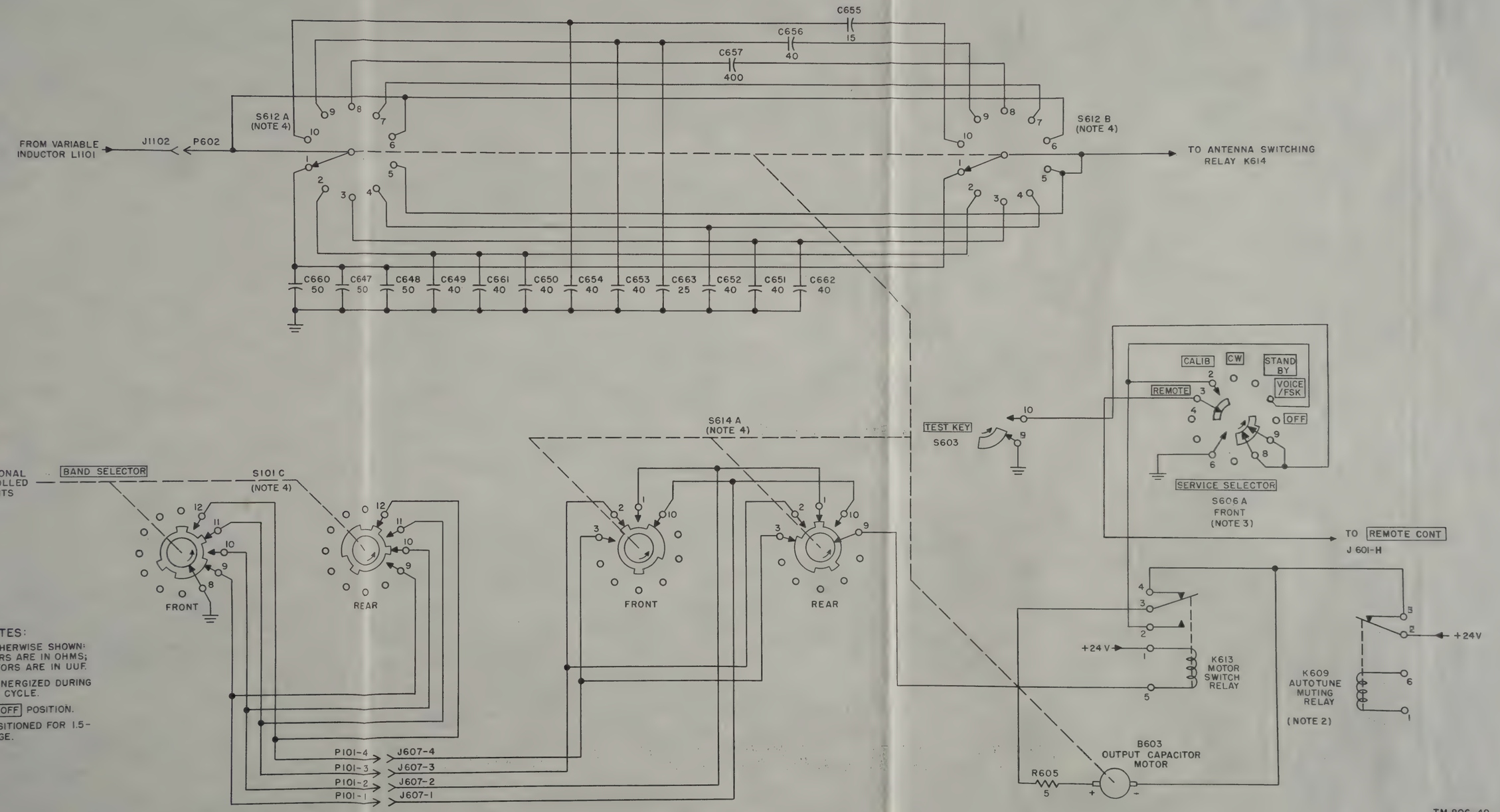


Figure 45. Homing circuits, functional diagram.



NOTES:

1. UNLESS OTHERWISE SHOWN: RESISTORS ARE IN OHMS; CAPACITORS ARE IN UUF.
2. K609 IS ENERGIZED DURING AUTOTUNE CYCLE.
3. SHOWN IN OFF POSITION.
4. SHOWN POSITIONED FOR 1.5-1.7 MC RANGE.

Figure 52. Output capacitor, functional diagram.

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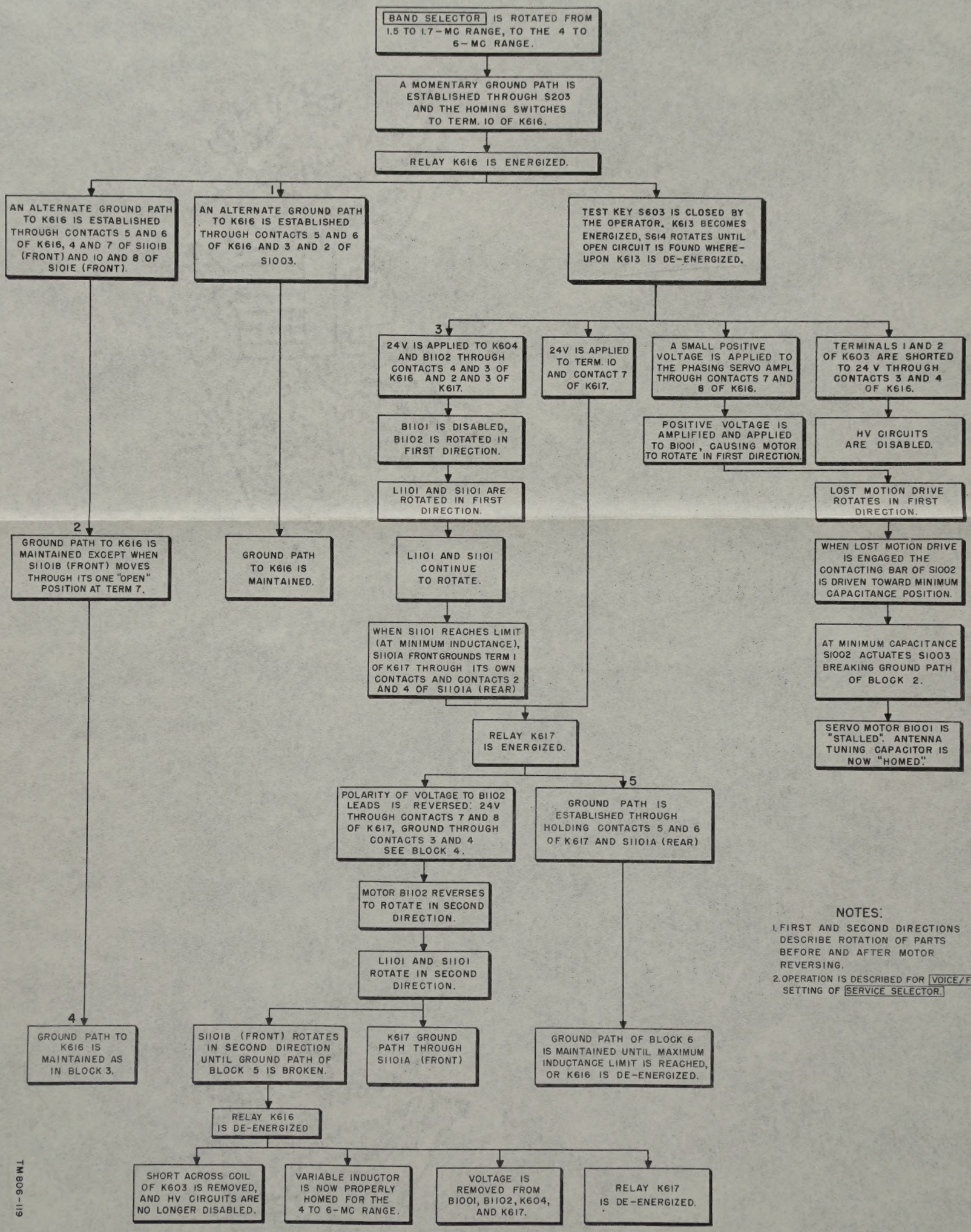

NOTES:

1. FIRST AND SECOND DIRECTIONS DESCRIBE ROTATION OF PARTS BEFORE AND AFTER MOTOR REVERSING.
2. OPERATION IS DESCRIBED FOR VOICE/FSK SETTING OF SERVICE SELECTOR.

Figure 44. Homing cycle flow chart.

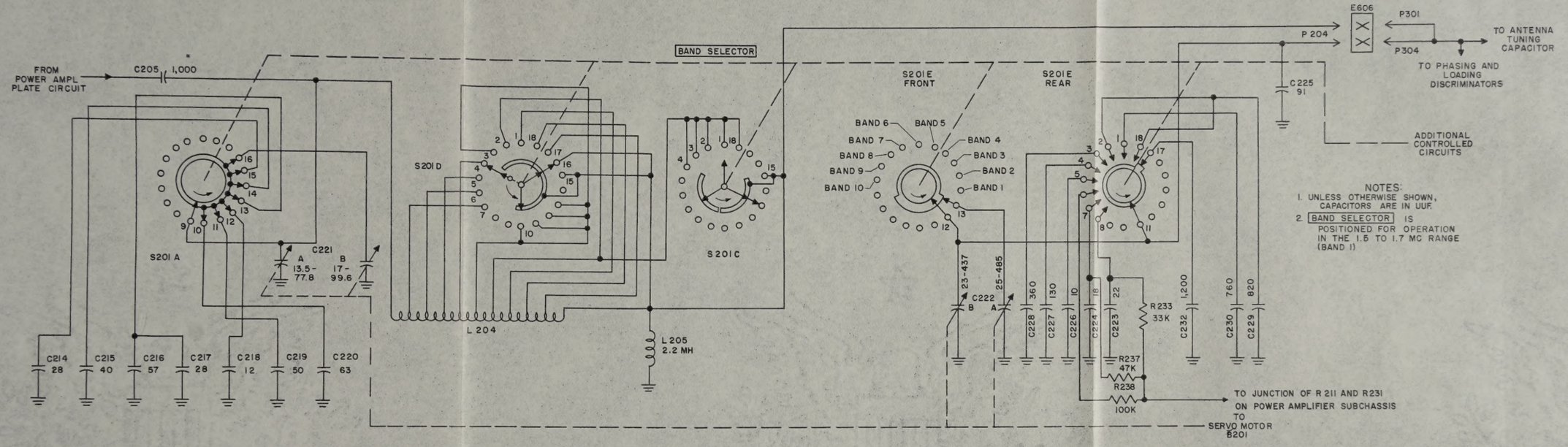

Figure 31. Power-amplifier plate circuit, functional diagram.

TM 806-32

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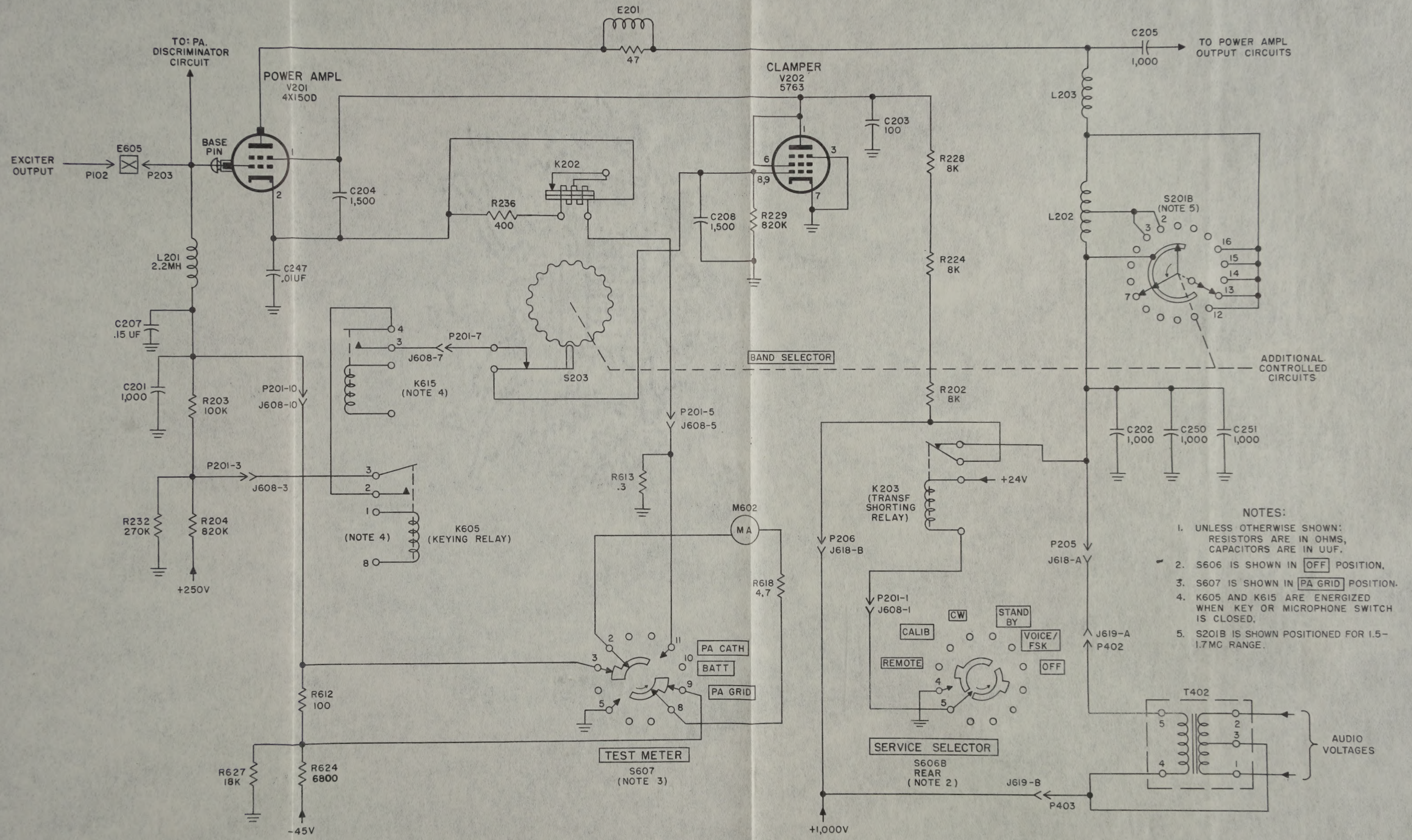

Figure 30. Power-amplifier and clamper stages, functional diagram.

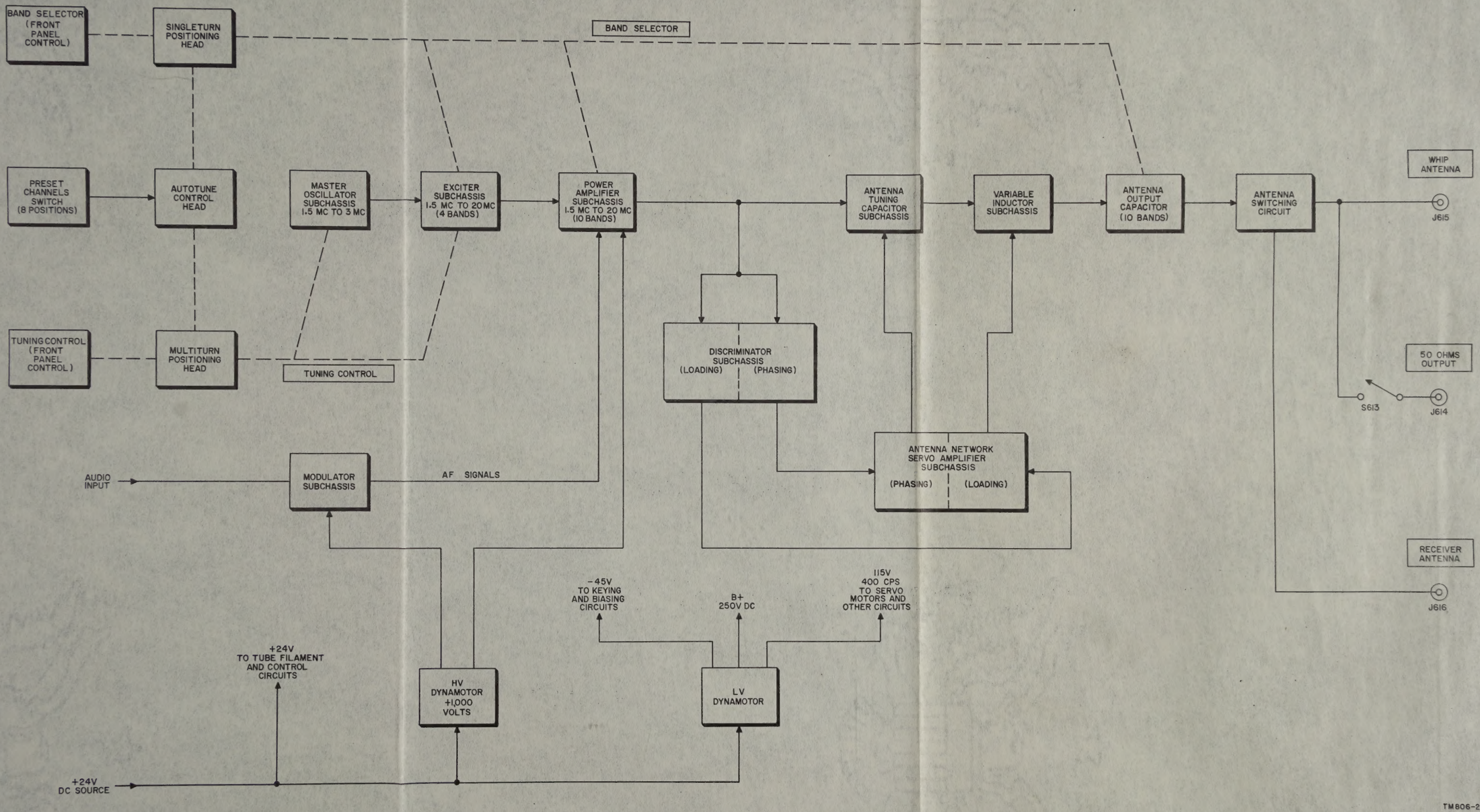

Figure 20. Radio Transmitter T–195/GRC–19, composite block diagram.

TM806-21

390412 O -56 (In pocket) No. 1